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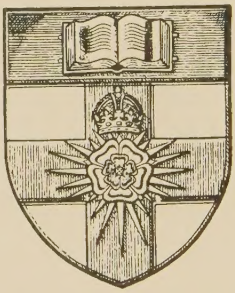

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THE

SURVEYORS' INSTITUTION

(*Incorporated by Royal Charter*),

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

TRANSACTIONS.

VOL. XXXII.

SESSION 1899-1900.

LONDON:

PUBLISHED AT THE INSTITUTION.

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

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The Surveyors' Institution

(Incorporated by Royal Charter),

12, GREAT GEORGE STREET,
WESTMINSTER, S.W.

OFFICERS, 1899-1900.

COUNCIL.

President.

Thomas Miller Rickman (*London*)

Vice-Presidents.

John Shaw (*Derby*)
Sir John F. L. Rolleston (*Leicester*)
Arthur Vernon (*High Wycombe*)
Henry Drew (*Exeter*)

Members of Council.

Fred. Thos. Galsworthy (*London*)
Albert Buck (*Worcester*)
Herbert Thomas Steward (*London*)
Charles Bidwell (*Ely*)
Richard Horsfall (*Halifax*)
William Wright (*Wollaton, Notts*)
George Langridge (*Tunbridge Wells*)
Jacob Wilson Fair (*Wigan*)
Thos. Taylor Wainwright (*Liverpool*)
Howard Martin (*London*)
James Stewart Kincaid (*Dublin*)
Alexander Rose Stenning (*London*)
Alfred Savill (*London*)
The Hon. Edward Gerald Strutt. (*Chelmsford*)
Leslie Robert Vigers (*London*)
Thomas Blashill (*London*)

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Joseph Henry Sabin (*London*)
Arthur Norman Garrard (*London*)

Associates of Council.

Sir Richard Everard Webster, Bart., G.C.M.G., Q.C., M.P.
Sir John Wolfe Barry, K.C.B.

Past-Presidents.

1868 *John Clutton*
1870 *Richard Hall*
1872 *Edward Norton Clifton*
1874 *Thomas Huskinson*
1876 *Edmund James Smith*
1878 William Sturge
1880 *Edward Ryde*
1883 *Thomas Smith-Woolley*
1885 *Edward I'Anson*
1886 *William James Beadel, M.P.*
1888 Elias Pitts Squarey
1890 *Robert Collier Driver*
1892 *Charles John Shoppee*
1894 *Thomas Chatfeild Clarke*
1895 Daniel Watney
1897 *Christopher Oakley*
1898 Robert Vigers

(The names of those deceased are printed in italics.)

Honorary Secretary.

John Wornham Penfold

Secretary.

Julian C. Rogers

The Surveyors' Institution

(Incorporated by Royal Charter)

Is established—

1. To secure the advancement and facilitate the acquisition of that knowledge which constitutes the profession of a Surveyor, viz.—the art of determining the value of all descriptions of landed and house property, and of the various interests therein; the practice of managing and developing estates; and the science of admeasuring and delineating the physical features of the earth, and of measuring and estimating artificers' work.
2. To promote the general interests of the profession, and to maintain and extend its usefulness for the public advantage.

The Institution was established in 1868, was incorporated by Royal Charter in 1881, and has a total membership of 3,000.

The Institution consists of four classes, viz.—Fellows, Professional Associates, Associates, and Honorary Members, with a class of Students attached.

A Fellow must be more than twenty-five years of age, and must have acquired a practical knowledge of surveying in one or other of its branches as above defined; and must have passed the Examination declared in the Rules of Examination to appertain to the class of Fellows, or some other Examination in the United Kingdom or the Colonies which the Council may declare to be equivalent thereto.* Fellows have the right, conferred by the Charter, to use the letters F.S.I. after their names.

A Professional Associate must be more than twenty-one years of age, a Surveyor by profession, in practice on his own account or employed as an Assistant in a Surveyor's Office, and qualified for the class by having passed the Students' Proficiency Examination, or the Professional Associates' Qualifying Examination. Professional Associates have the right, conferred by the Charter, to use the letters P.A.S.I. after their names.

* *The Council possess only a very limited dispensing power as regards the Examinations.*

An Associate must be more than twenty-one years of age, not a Surveyor by profession, but his pursuits must be such as to qualify him to concur with Surveyors in the advancement of professional knowledge.

An Honorary Member must be a person who, either by reason of his position or experience, or his eminence in science, may be enabled to render assistance in promoting the objects of the Institution, but who is not engaged in practice as a Surveyor in Great Britain or Ireland. He has the privilege of being present and taking part at all Ordinary General Meetings, and of access to the Library, but no right of voting, discussing, or otherwise interfering in the affairs of the Institution; nor is he called on to contribute to its funds.

Students (who must not be under eighteen years of age) qualify as such by passing the Students' Preliminary Examination. Candidates for Studentship who can produce a Certificate of having passed the Matriculation Examination of the University of Oxford, Cambridge, London, or any other University in the United Kingdom, or who have passed, with Honours, the Senior Local Examination of the University of Oxford or Cambridge, or who have obtained a Higher Certificate at the Examinations of the Oxford and Cambridge Schools' Examinations Board, are exempted from this Examination, and may be admitted by the Council on the recommendation (according to a form) of four Fellows and two Associates, or of the Fellow or Associate to whom they are or have been articled; but it is obligatory on all Students to undergo the Proficiency Examination at the close of their Student course, at the time and under the conditions applying in each particular case under the Rules of Examination.

The Council may accord to Students such privileges, subject to such terms, regulations and restrictions, as they shall from time to time prescribe.

Any person desirous of being admitted into the Institution (excepting to the class of Students) must be proposed and recommended according to a form, in which the full name, place of business (if any), usual residence, and qualifications of the candidate must be distinctly specified. This form must be subscribed by him, and signed by at least six Fellows or four Fellows and two Associates, certifying a

personal knowledge of the candidate; or by four Members of the Council, of whom the President shall be one, after careful enquiry into the antecedents of the applicant.

The proposal so made, being delivered to the Secretary, will be submitted to the Council, who, on approving the qualifications, will determine the class for which the candidate is to be presented for ballot.

The following are the rates of contribution to the funds:—

	Annual Subscription. £ s. d.	Admission Fee. £ s. d.
Student . . .	1 1 0	—
Associate . . .	2 2 0	3 3 0
Professional Associate	2 2 0	3 3 0
Fellow . . .	3 3 0	5 5 0

No person can become a Member (other than an Honorary Member) of the Institution, unless and until he pays as his first Subscription to the Institution, in the case of becoming a Fellow of the Institution, the sum of Eight Guineas, in the case of becoming a Professional Associate of the Institution, the sum of Five Guineas, and in the case of becoming an Associate of the Institution, the sum of Five Guineas.

All Fellows, Professional Associates, and Associates, are required, within twelve months after their election, to deliver to the Council an original Paper on some subject connected with the profession, or to make a donation to the Library or Collection.

The affairs of the Institution are under the management of a Council, which is elected annually, consisting of a President, four Vice-Presidents, sixteen Fellows, two Professional Associates, and two Associates.

The Session of the Institution commences annually on the second Monday in November, and continues to the end of May. The Ordinary General Meetings are held on every alternate Monday during the Session. At these Meetings original communications are read on professional subjects, and their merits fully and freely discussed. Every Member has the privilege of introducing one visitor to these Meetings. Members are entitled to a copy of any printed publication issued by the Institution after their admission.

Paper 250.}
No. 403.}

J. L. Bolden
Notting Hill

THE OPENING ADDRESS

BY

THOMAS MILLER RICKMAN, President,

AT THE ORDINARY GENERAL MEETING OF

THE SURVEYORS' INSTITUTION,

November 13th, 1899.

In addressing you for the first time as your President, it is my principal duty, as it is certainly my greatest pleasure, to congratulate you on the completion of the handsome building in which we are assembled this evening. It is a home in all respects worthy of this great Institution, and should meet all our practical requirements for many years to come. It is too early to give precise figures as to cost. It is sufficient to say that we have not outrun our means, and that there will still be left, after all has been paid for, a substantial residue out of the fund we have been accumulating for the purpose for the last quarter of a century. As may be supposed there has been no lack of suggestions for the disposal of the money in other ways, many of which would doubtless have been productive of immediate benefits of one kind or another. Your Council felt, however, that it was the better policy to forego for the present any such schemes in favour of an employment

of the money in a manner conducive to purposes of a more practical and enduring character.

As some measure of this permanency, I may mention that our lease has nearly a thousand years to run, and that in the erection of our building we have employed, under the guidance of our renowned architect, the best known means to obtain the solidity and durability of the structure itself.

It has often struck me, as it must have struck many others, that the public has a very imperfect grasp of the scope of the name "surveyor" by which we are known, and I sometimes think that the importance of our craft is a little underrated by the public, and certainly by the public press, in consequence of the difficulty of defining a "surveyor" in terms at once sufficiently succinct and comprehensive.

There are, as we all know, surveyors who are primarily managers of agricultural estates; others who are purely valuers; others who are connected with building and with the system of tendering and contracting for works, as well as in some well-known instances with the superintendence of them; while, as though these occupations were not sufficiently diverse, the term is also applied to a number of persons engaged in duties not at all related to our profession, such as surveyors of shipping, surveyors of taxes, and who shall say what besides. All this is very confusing to the public, more especially as there is apparently a fixed idea in the minds of a large number of persons that the term "surveyor" applies exclusively to the man whose appearance on the ground is unexplainable except on the hypothesis of a new railway or a new street.

To the uninstructed mind the connection is of the

most shadowy description between the man who manages a great agricultural estate in the capacity of agent, and the man whose daily duty it is, say, to measure up the materials and the labours involved in the erection of a large building in any of our towns; yet the connection is a very real one, when one comes to look beneath the surface. Its best exponent will perhaps be found in the word "property"—on the one hand, in the land when employed in its most natural way for the production of food for the sustenance of man, and on the other hand, when a more remunerative use has been found for it as a site for houses or for buildings for the thousand and one industrial purposes which arise out of the complex conditions of modern civilisation.

The management and development of property, and its most perfect form of utilisation under the particular time and circumstances of the case, is therefore the common ground on which the various branches of the surveyor's profession meet. And this brings me naturally to a consideration of the way in which we can best equip ourselves for the exercise of a profession which is so intimately and vitally connected with those great interests of property on which our stability as a nation so largely depends.

We of the older generation were confronted with difficulties in the acquisition of professional knowledge of which the younger can have no conception. We had to grope our way, as best we could, without text books and almost without formulated experience of any kind. We had to learn by contact with hard facts, by the penalties which wait upon mistakes, and by the still greater penalties that follow on insufficient knowledge of the work in hand. It was a rough and ready school

of training, in which the weaker necessarily went to the wall, but I am not sure that it was wholly without its advantages in developing fibre and self-reliance.

All this has changed. The young man on the threshold of his business life is no longer a solitary unit, seizing and assimilating as best he may the scraps of knowledge and professional tradition which chance may throw in his way; but a participator, on terms of absolute equality, in the accumulated stores of knowledge laid up for him in text books, and treatises on every imaginable subject with which he will be called upon to deal. A careful path has been traced for him along which to pursue his studies. His personal success will therefore depend, in future, less on chance opportunities of acquiring the knowledge which is now made common to all, than on qualities of character which no system of education can confer upon him.

And here let me digress a moment and refer very briefly to our system of professional examinations, of which I have some title to speak, having been connected with it from its first inception. In common with all systems of the kind, it has, of course, its weak points. Our examinations are at once too long, and not thorough enough; too long and exhausting for the patience and endurance of the less physically fit, and not sufficiently searching to be a wholly satisfactory test of knowledge in such a wide range of subjects. How is this to be remedied? An intermediate examination at once suggests itself. This would mean, I apprehend, the division of the fellowship examination into a preliminary and a final, the former confined to book work, and the latter to practice, pure and simple. Under the present system the candidate too frequently passes on his book work only, which is clearly an undesirable state of things. It will be said

that we have already done something towards curing this defect by requiring each candidate to pass in what we call a "typical subject," by which we mean a subject distinctive of his proposed line of practice, but I do not regard this as sufficient. It may be objected that by the introduction of an additional examination we should be adding to the already heavy burdens which our candidates are called upon to bear, but I do not see that this would be oppressive. It would be more difficult, no doubt, for an incompetent man to squeeze through the meshes of the net, but, to the man with real knowledge, it would be a help rather than a hindrance to have his work divided in the manner I suggest. Nor would there be any practical hardship in the matter. Those who have already passed the test would have no grounds to be dissatisfied with the new departure, and would not be deeply afflicted by its imposition on other shoulders than their own, while those who have not yet qualified could not complain if we interposed some further conditions, with the object of making the Fellowship a more enviable distinction when won.

Furthermore, I am of opinion that the present system of allowing a candidate to come at the age of twenty-two or thereabouts for his Fellowship Examination is an undesirable one. It is true that he cannot be actually transferred to the higher class until he is twenty-five years old, but what test of practical knowledge is it possible or fair to apply to a young man only one year past his majority ?

I would therefore apply the test of book knowledge in the form of a first examination for the Fellowship at the earlier age, and the strictly practical test at or after the age of twenty-five years, when the candidate will have had a chance of acquiring a measure of actual

experience and attaining some suitable position in his profession.

Pray understand that I am expressing my personal views only, and am not speaking in any way on behalf of the Council, who may or may not agree with me.

You must not understand for one moment that I undervalue examinations like ours. They are of the greatest utility in systematising a young man's knowledge, whatever it may happen to be, but they are not the *ne plus ultra* of professional fitness. An artisan may know the name and use of every tool employed in the prosecution of his craft without being a skilled workman. He may be a master of the terminology of his trade, but break down under the test of work pursued under novel conditions and upon materials to which he is not accustomed. Similarly the young surveyor who has not practical knowledge is useless in his profession.

After all, and under the most favourable conditions, examinations are but a rough sifting process. The surveyor's most valuable acquirements come to him, if they come at all, long after his technical studies are past and over.

As the name implies, a surveyor is a supervisor, or to use the more homely Saxon term an "overseer." The very name implies superior skill, fitting him to be an adviser on matters that lie outside the range of common knowledge.

In the very early days of the Institution we had a paper by the late Mr. Jeremiah Mathews, a man well qualified to handle the text, entitled "A Plea for Culture "in the Profession of a Surveyor." This was thirty years ago. What have we done, or rather what has since been done, towards the realisation of the higher ideal of the larger general culture for which he pleaded?

The surveyor is above all, or at any rate should be, what the French call a "man of affairs." It is of the essence of his knowledge that it should be of a wider and more general if less profound character than is necessary in some of the more specialised professions. Was it Lord Erskine or Lord Bacon who claimed that all the arts and all the sciences went to the equipment of the successful advocate? This was the language of hyperbole; but descending to the plane of practical life, I think it would be difficult to name a branch of knowledge which the surveyor might not find of service to him at some period of his professional career.

The institution of property and its security are the paramount facts in the life of a progressive community. All the arts and all the sciences are its hand-maidens, necessary to its creation, development, or enjoyment, or dependent on it for reward. The surveyor who to-day is called upon to value, to buy, or to sell a house in residential Kensington, may be called upon to-morrow to value, or buy, or sell an estate, say in Staffordshire, devoted, so far as the surface is concerned, to Agriculture, but rich in underlying minerals, dotted with mills or factories, traversed by canals or railways, and affected as regards its market value by all manner of public rights, restrictive customs, and legal obligations, the whole of which must be understood and mastered by the surveyor worthy of the name.

Am I therefore using the language of exaggeration in claiming that the surveyor's information should be somewhat encyclopædic, not after the manner of the specialist, but after that of the man of wide general knowledge?

But, you will ask, how is a man in these strenuous days to find the time, even if he possesses the ability

for becoming such a paragon of knowledge? My answer is, let him keep the aim in view and do what he can towards its accomplishment.

The world is full of folk that look without seeing. The motto for the young surveyor should be, "Observe, "observe, observe." Let him not be content to regard anything as outside his range, or beyond his capacity to understand, whether it be questions of finance and the movements of prices, or the laws of sociology, or the principles of science, pure or applied, or economics, or legislation, or law, or history. He is to be the adviser to his fellow men in matters that, more nearly than any other, touch their material interests, and there is nothing that can be known that may not have a bearing, either immediate or remote, on those interests, or that is alien to the proper furnishing of his mind.

The surveyor enjoys special opportunities for observing much that lies beyond the paths of others. The configuration of the surface of the land and the physical causes which underlie it, the colouration of the fields and the reason for it, the striæ on the face of the rock, the varied coloured margins of the streams that cross his path, above all the history of our country. The facts with which he deals lead him to the consideration of the growth of national institutions, the variations recorded in history's changeful page in the relations of owners and occupiers, the flora of the fields and hedgerows, anywhere and everywhere a thousand and one sources of knowledge lie open to the observant eye and can be utilised.

All these subjects appertain more or less to the surveyor's profession. It is true that he is concerned mainly with the present and the future of property; but the past also has its value and provides matter for enlightenment.

My experience now extends over 50 years, and I am glad to be able to record my conviction that, taking the profession as a whole, the status of its members has very greatly improved during that period. It is not only that we have shared in the general rise of culture throughout the community, but that the profession itself has risen in public estimation. As our examination lists show, it is yearly attracting to its ranks more and more of those who formerly betook themselves exclusively to the so-called "learned professions." This has of course two sides to it: it proves on the one hand the severity of the competition in those professions, but it proves on the other that our calling has taken its place beside them.

My duties only occasionally lead me to the witness box or the seat of the arbitrator, but I have seen enough of both to assure me that our present procedure for arriving at the value of expropriated property stands much in need of reform. I agree with all that was said by my predecessor in this chair with reference to the position of the professional witness. But I would go further. I would not only abolish the oath as administered to him, and frankly accord the witness the position of an advocate for his side, but I would put a limitation on the practice of cross-examination—that cherished privilege of our legal friends—having long come to the conclusion that it is rather an exercise in forensic dexterity than a means of assisting the man who has to decide the issue. To a well-informed and competent arbitrator, much cross-examination is a mere weariness to the flesh—a tiresome display of superfluous dialectics. He is perfectly able (or should be so, if he has been wisely chosen) to assess the weight and importance of the evidence-in-chief, and if he is not, he is by no means assisted by a wordy war between the witness and his

cross-examiner. I would therefore give the arbitrator power to dispense with the cross-examination of any particular witness if he is satisfied that his evidence-in-chief is honest and relevant to the facts, or to comment freely on such evidence if it has made the contrary impression on his mind.

In the ordinary course of things my immediate successors in this chair will be land agents, and, as such, more competent than I am to deal with the class of subjects with which I suppose many of our members are principally concerned. I therefore leave the task to them, and turn with a sense of relief to the branch of practice with which I am more familiar—the business of a building or measuring surveyor.

The changes during my lifetime have been very great in all matters connected with my particular professional domain. There have been changes in our methods of measurement, in the constructive details to which those methods are applied, in the materials to be dealt with and, above all, in the training and position of the workman who gives visible form and substance to our labours.

Forty years ago the workman in the joiner's shop had to square, to plane, to mortice, to mold, and to mitre with his own hands. Now a large part of these labours is done by machine and machine hands, and the modern joiner does little else than fitting, fixing, and altering.

Whatever may be the merits or demerits of the present race of artificers, I always feel that we owe their predecessors in the past a deep debt of obligation for what they did for us in discovering the capabilities of materials and adapting them to constructional art.

There is no doubt that if a main function of the

ancient trade guilds was the protection of the various crafts, another, and not inconsiderable one, was the perfecting of their arts. I should like to feel that the same duality of purpose animates the craftsman of the present day, but I suppose we must regard ourselves as living in a transition period—a period of temporary strife and confusion from which a new order of things will emerge, and perhaps a reversal of the present relationship of the classes. We cannot tell what this new order of things will be, but of this we may be certain, that the general welfare of the community should be the determining factor, and that class jealousies and selfish rivalries will be allowed to have but a subordinate influence on the ultimate result.

We must remember, however, that it is not merely the craftsman who has drifted away from his original relations to his work. His employer has also greatly shifted his standpoint. In former days a man about to erect an important building had nothing in the nature of organised resources at his command. He had probably to collect his artificers from far and wide; to use, owing to difficulties of transport, such materials as were ready to his hand, and, generally, to gauge and measure for himself the special possibilities of the work. As a necessary consequence his whole soul was in his work, and it became stamped with his individuality and with that of the workmen engaged upon it.

All this is changed. The modern general contractor with his costly machinery, his *entourage* of dealers in materials, and his organised retinue of artisans and labourers, undertakes the work without enthusiasm, on a cold commercial basis, in an atmosphere of penalties, and passes on when it is completed to another so-called "job" without leaving a trace of his identity behind

him. This is no doubt business, but it is not favourable to development, except on the lines of a brutal utilitarianism. I call attention to this merely by way of illustrating the fact that it is not the workman only that has drifted away from his old moorings.

And this brings us to another point. To those of our members who, like myself, are mainly occupied as building and measuring surveyors, the present state of the skilled labour market is a matter of thought and anxiety. The most acute symptoms of the crisis in the building trades naturally display themselves in this all-devouring metropolis of ours, but the effects will be felt before long (if they have not already revealed themselves) both in the quantity and the quality of the skilled labour available for building operations in the country districts, which London is sucking dry. In this we are all alike interested.

The seriousness of this state of things demands a closer attention than I can give it in this Address, but I cannot pass it over entirely. There has been recently published a most important paper in the form of a report of the special sub-committee of the Technical Education Board of the London County Council. This report makes it abundantly clear that the country workshop is now the only nursery of the London building artisan, for it is in the country alone that he finds the opportunity of apprenticeship to his craft. It is astonishing to learn from this report that, in 1895, "41 typical London firms engaged in various branches "of the building trade, having among them 12,000 "employés, have only 80 apprentices and 143 so-"called 'learners,' instead of 1,600, which would be "about the normal proportion." I may explain that a learner is an unapprenticed lad, generally the son of a journeyman.

Now it is evident that we are here confronted by a very serious state of things. The men are insistent in their assertion that the fault lies with the masters, who, they allege, refuse to be troubled with apprentices in their crowded shops, where the most effective use has to be made of every inch of bench-room.

Many of the masters, on the other hand, charge the men with an intentional restriction of the number of apprentices, with a view of limiting the output and creating an organised monopoly in the interest of the present generation of artisans employed in the trade.

Let us briefly examine these two apparently contradictory contentions. First as regards the masters. The tendency of the time is undeniably towards the absorption, or extinction if you like, of the masters in separate trades, and the aggregation of work in the hands of the capitalist employer, who finds it to his interest to substitute mechanical for hand processes in every possible way. Some change, however, in the way of resuscitating the employment of masters of separate trades may now be noticed.

So long as he can get such skilled labour as he requires, it is a matter of indifference to the general contractor where the skill has been acquired, and he does not feel under any obligation to encumber his shops with raw lads, who are troublesome to manage, and add nothing to his profits. This is, in my opinion, a very shortsighted policy, and one which, if persisted in, is bound in time to affect the building trade most disastrously. I am glad to be told that several leading builders see this, and are opening their shops again to apprentices.

The allegation against the men is probably true in at least an equal degree; but we must not be unjust to them. It is perhaps a bold thing to say, but I believe it

to be the case that in every organised calling there is a tendency, perhaps unrecognised, certainly unacknowledged, towards restricting the numbers of those that enter it. It exists just as much in the professions as in the trades, but takes the form not of actual but virtual exclusion by a rise in the amount of premiums to be paid, an increase in the difficulty of the examination to be passed, or a greater stringency as regards the conditions of admission. Much of this is no doubt unconscious, but the facts are as I have stated.

The action of the trades as contrasted with that of the professions is therefore less a difference in kind than in degree. The practical point is how far it can be carried without injury to the permanent interests of the calling.

It would appear that in certain trades unregulated efforts to limit the number of the workers has resulted in irreparable mischief to the trade itself. The public must be served. It will not stand aside or suffer its interests to be postponed to the interests of the workers. As a consequence invention is stimulated, and new mechanical processes enter the field in competition with hand labour. For example, the carpenter and joiner is fast becoming a mere fitter and fixer, while the plasterers, whose economic sins have perhaps been the greatest, have called into being the Nemesis of fibrous plaster and other "decorative" appliances, and have set the architects on an eager quest for some substitute for the present clothing of our walls and ceilings.

It is important to consider whether there has been any such deterioration in the quality of work as might be expected in connection with the present revolt of the trades. We are met at once with the familiar observation, "Work as good as ever can still be obtained if you

like to pay for it." But that is not the question. What we want to know is, whether the average quality of work has declined—the vast mass of work performed, not for rich employers, but for the great middle classes, who after all constitute the great body of employers? I fear the answer would be in the affirmative, and it is here that the decline of the apprenticeship system makes itself felt. Work of this class is the happy hunting ground of that epitome of all incompetency the "odd-man," a tradesman only in name, who has picked up such knowledge as he possesses in his capacity of plumber's or carpenter's mate.

What is the remedy for all this, and where is the skilled artisan of the future to come from, seeing that both his natural progenitors decline to call him into being?

You will ask, are there not technical education boards, schools of arts and crafts, manual instruction classes, and heaven knows what besides, all constituted for this very object, amply subsidised with funds, and sponsored by public and semi-public bodies? It is true that all this machinery exists, that great things are expected of it, and that something has been done by its means in the direction of the higher theoretic training of the skilled, practical hand, but this is surely a very long way short of the aims of the promoters. What can these institutions do in face of the jealousy with which they are regarded by the unions, as possible engines for counter-working their cherished policy of restriction of numbers? The unions are willing enough to allow their members to avail themselves of the higher theoretical training thus placed within their reach, for it is all in the direction of strengthening the monopoly at which they aim, but they regard with a scarcely veiled

hostility any attempt on the part of technical education classes to manufacture mechanics, and the boards themselves betray a nervous anxiety lest the attitude of the unions be changed from one of passive to one of active hostility.

I have nothing but praise for these classes as a means of developing a higher capacity in the existing race of artisans, and, if you like, as a means of disseminating manual skill, and promoting artistic perception among the general population; but to look to them as a recruiting ground for the skilled labour market is, I feel, mere delusion and confusion of thought. It is simply doing, or endeavouring to do at one end, what the trades unions are as carefully undoing at the other; and the effort will, I fear, be crowned with futility.

The solution of the difficulty must come, if it comes at all, from the parties primarily interested—from an intelligent appreciation of the facts on the part of the masters and the men, under pressure of public necessity.

I understand that there is no indisposition on the part of many of the men's organisations to regard with favour the reintroduction of the apprenticeship system under certain safeguards against the flooding of their trades. On the other hand, the necessities of the masters will before long lead them to see that they are drawing on a limited stock of skilled labour without taking measures for making good the waste—a process which cannot go on indefinitely. The same state of things is evident in that class of skilled farm work, like thatching and dry-walling, not strictly agricultural in character. There is hope therefore that the masters will see the necessity of laying aside their objections to the presence of apprentices in their shops, and will come

to some agreement with the men as to an increase in the number of young hands to be introduced, in order to keep the trade alive and prevent it from degenerating as regards quality of work.

No doubt there are social reasons operating to some extent towards diminishing the number of young men entering the various building trades. So experienced a builder as Mr. Henry Holloway states in evidence in the report I have referred to, that "a large proportion of the " sons of London artisans become clerks in City offices"—a statement confirmed by a later witness, while a third, singularly enough, declares that a large proportion of those attending the technical classes are clerks and unskilled men seeking by this means to enter the ranks of skilled labour. Here is the systole and disastole of the present movement most instructively displayed.

All the talk about government grants and apprenticeship funds I look upon as absolutely vicious, if not totally absurd. Where are funds to come from sufficient to affect even the fringe of the difficulty, and how could they be applied? Alas for the erstwhile doctrine of *laissez faire,* once regarded as the note of all true progress! No, the revival of the apprenticeship system, with all that it implies in the way of efficiency in the worker, must come from within, not from without, and I have sufficient faith in the good sense of my fellow-countrymen, whether of the masses or the classes, to believe that it will be brought about as soon as the parties immediately concerned are convinced of its necessity, and not one moment sooner.

For the form of these remarks, and for the illustrations taken from the Report on Technical Education, in support of my views on that subject, I am greatly indebted to our Secretary, Mr. Rogers, who has used and

condensed my observations in a manner greatly to the advantage of those who have done me the honour to listen to the address which it has been my duty to deliver this evening.

Sir JOHN F. L. ROLLESTON (Fellow) asked the Meeting to pass a very hearty vote of thanks to the President for his interesting and instructive Address. He felt unable, on the spur of the moment, to comment on the subjects dealt with by the President, but he was sure that no one present could more sincerely appreciate and more cordially acknowledge the value of the opinions and the advice which the Address contained. The Members recognised in the President not only the official head of The Surveyors' Institution, but also a man of refinement, culture, and learning outside the limits of his profession.

The present occasion marked, he thought, an epoch in the annals of The Institution. The Members were met, for the first time, in the commodious and handsome building which had lately been completed as a home for The Institution. Their deepest gratitude was due to the elders of the profession for the initiative they had taken, not only in the establishment of The Institution itself, but also in the erection of the noble building in which the Members were now assembled. But although the profession owed so much to the elders, it must not be forgotten that its future remained in the hands of the younger Members. It was with those now entering the portals of The Institution that the future character and prestige of the profession must rest.

He agreed with the President that the life was not truly lived which was absolutely and exclusively devoted to the means of living, and he recommended every young

man entering the profession to give some portion at least of his leisure to matters beyond the actual pursuit of his business. Even within his own experience, which was not such a very long one, there had been a great improvement in the position of surveyors, and he sincerely trusted that this improvement would continue to manifest itself.

A solicitor was a gentleman by Act of Parliament, and he hoped surveyors might earn an even better title to that appellation by their education, their integrity, and their adherence to the best traditions of their calling.

Mr. J. H. Sabin (Professional Associate of Council) said it gave him real pleasure to second, as a representative of the Professional Associates, the vote of thanks proposed by Sir John Rolleston.

There were many present who had known Mr. Rickman for a number of years, and he was sure that the closer their contact with him had been the more sincere was their admiration and respect for him.

There was matter for congratulation in the fact that The Institution was now taking a new departure under the lead of its first Quantity Surveyor President. The Institution was founded under the auspices of the leading men practising land surveying, and it seemed, he thought, fit that this new beginning should be inaugurated under a gentleman who led the sister branch of the profession —that of quantity surveying. He was quite sure all the members would heartily welcome Mr. Rickman's election to the position he now occupied, and be prepared cordially to uphold him in that position during his year of office.

The Address, dealing, as it did, with a variety of subjects, showed that its author had acquired, among

other knowledge, a considerable practical acquaintance with land surveying, and he (Mr. Sabin) would suggest to every land surveyor that he, on the other hand, should acquire some knowledge of building surveying, which he would find exceedingly useful in dealing with the builders and contractors, whose work he must from time to time be called upon to supervise, even if it were only in so small a matter as labourers' cottages.

With regard to the question of apprentices, to which the President had referred, he was not at all sure whether it would not be an excellent plan if the sons of London artisans, or boys prepared to enter into carpenters' shops, could be drafted into the country and learn their trade in the workshop of a competent country artisan. There was no place where they would be able to acquire a better knowledge of tools, although the work might be occasionally rough.

The vote of thanks having been put and carried by acclamation, the President briefly acknowledged the kind manner in which the Members present had received his Address, and the Meeting then adjourned.

Paper 251.
No. 404.

PARTY-WALLS UNDER THE LONDON BUILDING ACT, 1894.

By PHILIP E. PILDITCH, Fellow.

Read at the Ordinary General Meeting of The Surveyors' Institution, *on Monday, November 27th*, 1899.

Thomas Miller Rickman (President) in the Chair.

It is probable that Part 8 of the London Building Act which deals with party-walls come at some time or another within the view of most surveyors practising in London, and I have been led to believe that a Paper dealing with it, and particularly with such of the sections as involve alterations in the previously existing law would not be unacceptable.

It was my privilege to sit as a member of the committee formed of Members of the Council, and other members of the Institution, which, in 1894, spent some time in considering and drafting amendments to the London Streets and Buildings Bill, and much was done to improve it before it was passed into law under the title at the head of this Paper.

Sir John Bridge, indeed, has since said that almost all the sections of the Act seemed to him to have been so drawn as to be perfectly unintelligible, and that where they were intelligible, they were intelligible in two different ways and capable of two different constructions; which seems to indicate the permanence of the same sort of panic in the judicial breast at sight of a

Building Act as Chief Justice Cockburn experienced, when he said of the earlier Act that the builders had made it and they had better interpret it, for he could not.

Without being so pessimistic as this, there is no doubt that a great many questions from time to time arise which are by no means free from difficulty, and upon which diversities of opinion and practice exist.

Many of these questions have arisen out of variations from the previous statutes, and there are others, not coming within that category, which were not touched upon in previous discussions upon the subject, which have taken place at the Institution.

Some of these questions I propose to lay before you to-night, in the hope that discussion by the legal as well as by the ordinary members of the Institution may throw light upon them.

For it is certain that whether they be entirely practical points, or, as in most cases, partly practical and partly legal, we surveyors, as the administrators of the Act, must be prepared to act upon them, often without hesitation, though important interests depend in many cases upon the accuracy of the interpretations on which we act.

In addition to Part 8 of the Act (Sections 87 to 101), there are nine sub-sections of the Definition Section, which refer to party-walls, viz.: Nos. 16, 17, 18, 19, and 20, and Nos. 29, 30, 31, and 32, and two other sections which have some bearing upon the subject, viz.: Section 173, and Section 200, Sub-section 5.

I propose to deal with points arising out of the several sections in the following order:—

The Sub-sections of the Definition Section, and their relations to Sections 90, 93, and 173.

Section 87, as to the creation of party-walls.

Sections 88 and 92, defining the rights of the building owner, and the conditions upon which they may be exercised. Section 200.

Section 89. The rights of the adjoining owner as to works required for his convenience.

Section 95, providing how the expenses are to be borne in the several cases referred to in Sections 88, 89 and 92.

Section 90, providing the machinery for working the Act by notices and the like.

Section 91, providing for the settlement of differences by awards, &c.

Section 93, dealing with the special case of a building going lower than the foundations of adjoining buildings.

Section 94, providing for security to be given in certain cases.

First, however, let me say that there still appears to be here and there a surveyor who acts upon the belief that it is unnecessary to follow the procedure laid down by the Act, and that, provided a notice is served, an award may be dispensed with, and even that the service of a notice may sometimes be avoided.

It has always appeared to me to be much more easy, when the Act is understood, notwithstanding its difficult points, to settle a case in accordance with it, than to trust, if acting for the building owner, to the adjoining owner not being alive to his rights, or to the chance of no untoward accident occuring during the progress of the works. I am inclined to believe that the attitude of mind which I have referred to is becoming less prevalent, and that as the Act is better understood the advantages of following it closely are being more fully appreciated.

I. Definition Section.

What is a Party-Wall under the Act?

In the Definition Section of the Act of 1855 a party-wall is defined as "every wall used or built in order to "be used as a separation of any building from any other "building with a view to the same being occupied by "different persons."

This definition was extended considerably by the Act of 1894, Sub-section 16, where a party-wall is defined as:—

"(*a*) A wall forming part of a building and used or "constructed to be used for separation of adjoin- "ing buildings belonging to different owners "or occupied or constructed or adapted to be "occupied by different persons; or

"(*b*) A wall forming part of a building and standing "to a greater extent than the projection of the "footings on lands of different owners."

It will be seen that not only is the wording of the definition of what may be called a party-wall, by user, in the 1855 Act made clearer in the Act of 1894, but an entirely new class of walls, formerly not party-walls under the Act at all, are now brought within its scope, viz.: those forming part of a building and standing to a greater extent than the projection of the footings on lands of different owners.

In the past one had, in order to decide if a wall was or was not a party-wall under the Act, merely to inquire if it stood between two existing buildings with a view to separate occupancy. Now, in the case of a wall built against on only one side, the ownership of the soil on which a wall stands may have to be gone into to ascertain whether it is a party-wall or not under the Act.

The definition of a party structure in the Act of 1894 is also different from that in the Act of 1855.

In the earlier Act a party structure included "party-"walls, and also partitions, arches, floors, and other "structures separating buildings, stories, or rooms, which "belong to different owners, or which are approached by "distinct staircases or separate entrances from without."

But by the Act of 1894, Sub-section 20, Section 5, it means "a party-wall, and also a partition floor or other "structure, separating vertically or horizontally buildings, "stories, or rooms, approached by distinct staircases or "separate entrances from without": so that it will be seen that mere separate ownership without distinct staircases or separate entrances from without will not now render a floor a party structure. This was probably inserted in consequence of the case of *Holland* and *Hannen* v. *Wallen* under the old Act. (T. L. R., Q. B. D., vol. x. p. 300.) (P. N., vol vi, p. 503.)

Who is the "Adjoining Owner" under the Act?

An important question has arisen out of the definitions of "owner" and "adjoining owner" and their application in Sections 90 and 93.

All notices to be served by the building owner under Sections 90 and 93 are to be served upon the "adjoining "owner."

By Section 90 it is provided that "a building owner "shall not, except with the consent in writing of the "adjoining owner and of the adjoining occupiers . . . . ." exercise any of his rights under the Act unless he has served a notice upon the "adjoining owner," and Section 93 is worded similarly.

Under the Act of 1855, the word "owner" was defined

as applying to every person in possession or receipt either of the whole or of any part of the rents or profits, or in the occupation of any land or tenement, other than as a tenant from year to year, or for any less term or as a tenant at will.

The 1894 Act followed the same wording, but in the definition of an adjoining owner there is a difference.

In the Act of 1855, it is as follows: "Such one of the "owners of the premises separated by or adjoining to "any party structure as is desirous of executing any "work in respect of such party structure shall be called "the 'building owner,' and the owner of the other "premises shall be called the 'adjoining owner.'"

Upon this it was held, in the case of *Fillingham* v. *Wood* that when the adjoining premises are let out in separate tenements for terms exceeding those of tenancies from year to year, the building owner must serve party-wall notices on the holders of all such tenancies, and it is not sufficient for him to serve the landlord only, even where the landlord himself occupies part of the premises, and in the previous case of *Hunt* v. *Harris* (34 L J., C. P. 249) it had been held that whilst underlessees of portions of premises were not "adjoining "owners" so as to be liable for expenses under the Act, an owner of "something in the nature of a per-"manent interest in the whole of the premises" was so.

In the Act of 1894, the expression "adjoining owner" means "the owner or one of the owners," and "adjoining "occupier" means "the occupier or one of the occupiers "of land, buildings, stories, or rooms adjoining those of "the building owner."

The question has now arisen, has this alteration of the wording altered the law as defined in the cases I have cited, which have been generally acted upon by the

service of a notice on the owner of every interest beyond a yearly tenancy?

It has been contended that the use of the term, "or "one of the owners" in the definition of adjoining owner in the Act of 1894, was intended to relieve the building owner of the onus of serving all the various owners interested in the property with notices, provided one of them was so served, it being urged that it would often be very difficult to find out all persons interested in any property, and further (what is quite true) that there would be a deadlock if the different adjoining owners insisted upon the matter of the work to be done being treated upon divergent lines.

Section 173 of the Act is quoted in support of this contention. It provides that where any expenses are to be borne by the building or adjoining owner of any premises:—

"1. The owner immediately entitled in possession to "the premises, or occupier thereof, shall in the first "instance pay the expenses, with this limitation, that an "occupier shall not be liable to pay any sum exceeding "in amount the rent due, or that will accrue due from "him in respect of the premises during the period of "his occupancy.

"2. If there are successive owners, each of them shall "be liable to contribute to the expense in proportion to "his interest.

"3. Any difference arising as to the amount of con- "tribution shall be settled by arbitration.

"5. Any occupier of premises who has paid any such "expense may deduct the amount so paid from any rent "payable by him to any owner of the same premises, and "any owner who has paid more than his due proportion "of any such expenses may deduct the amount so over-

" paid from any rent payable by him to any other owner " of the said premises."

But this section merely governs the allocation of expenses incurred, usually by the building owner, and does not deal with the innumerable questions concerning what, how, and when work is to be done to a party-wall.

Upon the other hand it is contended, that what was intended by these words was rather to accentuate the necessity of giving each one of such owners by statute, the notice and other rights they previously had by case law.

The definition of " adjoining occupier," as meaning " the occupier or one of the occupiers" of adjoining premises, can hardly be read as confining the rights given by Section 90 to " the adjoining occupiers " to one only of them, for it is perfectly clear that if one *occupier* is entitled, as such, to anything, *all* occupiers must be.

The terms of the definition of " owner " in the 1855 and 1894 Acts, viz.: " *every* person in possession or " receipt either of the whole or any part of the rents or " profits, or in the occupation of any land or tenement " other than as a tenant from year to year or," seems to support this view.

It seems only reasonable that every such owner of an interest should be entitled to the advantage of the provisions of the statute, otherwise the ownership of any interest short of a freehold in possession or occupation would be subject to the limitation that at any time, without his consent or even knowledge, the building owner and the owner of some other interest in the property chosen empirically by the building owner to

suit his own convenience, might make an arrangement at variance with his interests, practically binding him though he had no share in making it.

For instance, where a property is leased by a freeholder for a long term and the lessee sub-leases the property for 21 years and the sub-lessee underlets on a three years' agreement, who is to say which adjoining owner is entitled to wield the powers given by the Act? Of course it is open to adjoining owners to pass the matter over to one of their number by agreement, and this is done in many cases, and it is a very proper arrangement, which gets rid of all difficulties, but it is not always practicable.

If the legislature had meant to vest in any one adjoining owner all rights belonging to other owners of interests in certain property, it would surely have been explicit on the point.

The case of *List* v. *Tharp* (P. N. vol. viii. p. 327), seems to me to go some way towards substantiating this position, so far at any rate as the owners of permanent interests in the whole of the premises are concerned, if it does not do so altogether.

In that case it was held that the word "owner" in Section 5, Sub-sections 29 and 32, and in Section 90 of the Act of 1894, includes a person who has entered upon land and erected buildings under an agreement for a lease, although the agreement was expressed not to operate as a demise, but to give only a right to enter on the premises for the purpose of performing the agreement, and that a person in that position is entitled as an "adjoining owner" to receive from an adjacent building owner the notice and particulars of proposed works required by Section 90 of the Act, and that it is not sufficient to give notice to the intending lesssor and enter into an award with him, which had been done in this case.

The judge held that the plaintiff had, by virtue of the building agreement, an equitable interest in the land and buildings which he had erected thereon, and that he was entitled to a notice as an "owner" within the meaning of Section 5, Sub-section 29.

2. The Creation of Party-Walls. Section 87.

For the first time in the history of the Metropolitan Building Acts, an attempt was made in this section to deal with the creation of party-walls, and at the same time to give certain rights to and impose certain liabilities upon a person wishing to erect an external wall

By Sub-section 1, any building owner desiring to build a party-wall on the line of junction or boundary of his own and another person's vacant land, and by sub-section 5, any such owner desiring to build an external wall on his own land, may serve a notice on the adjoining owner to that effect, describing the intended wall, which may then be erected as provided by the Act either as a party-wall or an external wall: but there is no provision necessitating the service of a plan or section with the notice, and it is to be hoped that when the forthcoming Amendment Act is prepared, a few words will be inserted to that effect, it having been found in practice that the words at the end of Sub-section 6 of Section 90, and Sub-section 1 of Section 93, requiring the service of a plan and sections, have been of the greatest value in simplifying proceedings and in preventing the misunderstandings which so frequently arise through the inability of one surveyor to ascertain clearly what the other is wishing to do.

By Sub-section 3, the cost of building a party-wall under such circumstances "shall be from time to time "defrayed by the two owners in due proportion, regard

" being had to the use made, and which may be made, of " the wall by the two owners respectively."

The section does not specifically say when the adjoining owner is to make his contribution, but presumably not until he makes use of the wall by building against it, for not until then can it be known to what extent he uses it.

It is worthy of note in connection with Sub-section 6 that the machinery provided in Section 91 for the settlement of differences is only to come into play to settle the compensation to be made for any damage done, and that there is no provision for an award to be first entered into specifying *how* the work is to be done.

It is possible for the adjoining owner to protect himself where the building owner proposes to put up a *party*-wall on the line of boundary before he agrees to that course being adopted under Sub-section 4; but where the building owner only wishes to put up an external wall, and to put his footings on the adjoining land, there is nothing to prevent his doing so in any way he likes, subject to the provision as to compensation; unless it be held that the words at the commencement of Section 91, providing that, in all cases not specially provided for by the Act, any difference arising between a building owner and adjoining owner, shall be settled in the manner specified therein, bring in that section, and give an adjoining owner the benefit of it at an earlier stage of the matter than under Sub-section 6 of Section 87.

I think an adjoining owner in such circumstances ought to have power to intervene before a building owner actually does work which might be prejudical to him.

I have a suburban case in my mind where a live

hedge, invaluable and irreplaceable, was destroyed by footings being so put, and though damages were eventually recovered before a police magistrate, they did not suffice to cover much more than the costs, and no money compensation could repay the adjoining owner for the loss of his live hedge.

3. The Building Owner's Rights and the Conditions upon which they may be Exercised. Section 88.

The Right to Underpin.

The word "underpin" has been interpolated in Sub-sections 1 and 6 of Section 88 (that word having been wanting in the corresponding sub-sections of the Act of 1855) no doubt in order to give statutory effect to a decision in the case of *Stokes* v. *The Standard Bank of Africa*, in which it was held by the judge that, in order to give a building owner the right to do underpinning works, a wall might be raised by being lowered, there being no specific right to the building owner to underpin a party-wall.

The interpolation of this word in Section 88 has also, incidentally, had its effect upon the meaning of Section 93, but this I will deal with later on.

Liability of the Building Owner to (a) *make good Damage* (b) *Pay Compensation.*

This branch of the subject is mainly, but not exclusively, dealt with in Section 88.

There are seven cases under the Act where a building owner is liable to make good any damage to works and in two cases pay compensation. The language of the various sections dealing with the matter varies and several questions arise out of them.

The first is under Sub-section 6 of Section 88, whereby, when a building owner has raised or underpinned a party structure or any external wall built against such party structure, he is liable to "make good all damage "occasioned thereby to the adjoining premises or to the "internal finishings and decorations thereof," and by Sub-section 2A of Section 95 the expense is to be borne by the building owner.

2nd. Under Sub-section 7, where a building owner has exercised his right to rebuild a party structure which is of insufficient strength for any building intended to be built he must "make good all damage occasioned "thereby to the adjoining premises or to the internal "finishings and decorations thereof," and by Sub-section 2B of Section 95, where the structure is of proper materials and sound, or not so defective or out of repair as to make it necessary or desirable to pull it down, the expense is to be borne by the building owner and "a fair "allowance in respect of the disturbance and incon-"venience caused to the adjoining owner" is also to be borne by the building owner.

3rd. Under Sub-section 8, where the building owner has cut into a party structure he must "make good all "damage occasioned to the adjoining premises by such "operation" but the words "internal finishings and "decorations" are left out, unfortunately as I think, unless they may be treated in Sub-section 7, as surplusage. By Sub-section 2C of Section 95, the expenses are to be borne by the building owner.

4th. Under Sub-section 9, where the building owner cuts away any footing, chimney breast, jamb, or flue, or other projection, he must "make good all damage occa-"sioned to the adjoining premises by such operation," the expense, by Sub-section 2D of Section 95, to be borne by him.

5th. By Sub-section 10, where he takes down an overhanging wall in order to erect an upright wall against it, the building owner must make good any damage "sus- "tained by the wall or building by reason of such cut- "ting away or taking down," but in the case of this sub-section there is no correlative in Section 95 throwing the cost upon the building owner as in the previous sections.

This seems to be a flaw in the Act. If, by the omission of the sub-section in Section 95, it was intended that in such a case the owner of the defective wall should pay either the whole or a portion of the cost of the necessary work, according to the decision of the surveyors, there is an ambiguity, because the condition at the end of Sub-section 10 of Section 88, puts the onus of making good any damage sustained by the wall or building upon the building owner. It was probably meant to leave the matter to the surveyors to settle, but this should, I think, be made clearer.

6th. Under Sub-section 2 of Section 90, when a building owner "lays open any part of the adjoining "land or building, he shall, at his own expense, make "and maintain for a proper time a proper hoarding and "shoring, or temporary construction for the protection "of the adjoining land and building, and the security of "the adjoining *occupier*."

The 7th is under Sub-section 3 of Section 93, and it provides that "the building owner shall be liable to "compensate the adjoining owner and occupier, for any "inconvenience, loss, or damage, which may result to "them by exercise of the powers conferred by this "section."

It appears strange that the important rights given to the adjoining owner as to compensation for incon-

venience, loss or damage, and for disturbance under Sections 93, and Sub-section 7 of Section 88, and Section 95, Sub-section 2B, should not also be given under Sub-section 6 of Section 88, and Sub-section 2A of Section 95, where underpinning or raising is done, in which case consequential damages as often arise, as in the case of Sub-section 2B of Section 95—indeed I have such a case now before me.

By Section 200, Sub-section 5, it is provided that: "Every person, who being a building owner, liable "under Part 8 of this Act to make good any damage, "which he may occasion to the adjoining owner's or "adjoining occupiers' property by any works authorised "to be executed by the building owner, or to do any "other thing upon condition, of doing which his right to "execute such works is by Part 8 of this Act de-"clared to arise, fails within a reasonable time to make "good such damage or to do such thing, shall be liable "to a penalty not exceeding £20 and to a daily penalty "not exceeding the like amount."

This section appears to contemplate a legal remedy quite distinct from that given by Part 8 of the Act by the action of the three surveyors, unless it may be taken that proof of the building owner being liable for any such matter in Section 200 must be afforded by the award of the surveyor or surveyors.

I have known of very few attempts, and those unsuccessful, to act upon this section, and should be glad if any member who has known it brought into play would give us the benefit of his experience.

Other Points on Sections 88 *and* 95.

Sub-sections 1, 2, 3, 4 and 5, of Section 88, giving certain rights to building owners, have correlatives in

Sub-sections 1A, 1B, 1C, 1D and 1E, of Section 95, providing how the expense of doing the necessary work is to be borne, but no particular question arises out of them.

Sub-section 11 of Section 88, has no correlative in Section 95. This subsection gives a building owner the "right to perform any other necessary works incident to "the connection of a party structure with the premises "adjoining thereto," but with no statement as to who is to bear the expense. I take it that the surveyors would be within their rights in deciding who is to bear such expense under the general words of Sub-section 1 of Section 91, giving them power to "determine . . . . generally "any other matter arising out of or incidental to such "difference."

At the end of this particular Sub-section of Section 88, however, follows as a part of it the following words:

"But the above rights shall be subject to this qualifi-"cation, that any building which has been erected "previously to the date of the commencement of this "Act, shall be deemed to be conformable with the "provisions of this Act, if it be conformable with the "provisions of the Acts of Parliament regulating build-"ings in London before the commencement of this Act."

Now, what does this mean? Are the "above rights" referred to, the rights given by Sub-section 11 only? which consist of one right alone, and that not germane to the point, or is it meant to apply to the whole of the preceding sub-sections and particularly Sub-sections 3, 4, and 5, which refer to the state of affairs under the previous law? I suppose it was, but how a judge would decide one can hardly tell.

Sub-section 12 of Section 88, which gives the building owner the right to raise a party fence or wall or to pull

the same down and rebuild it as a party-wall, has two correlatives in Section 95, viz., Sub-sections 2E and 2F which provide for the expense to be borne by the building owner.

That terminates Section 88, but Section 95 does not stop there.

There follows in that Section a provision that "if at "any time an adjoining owner makes use of any party "structure or external wall or any part thereof raised or "underpinned as aforesaid" (under Sub-section 6 of Section 88) "or of any party fence wall pulled down "and rebuilt as a party-wall or any part thereof" (under Sub-section 2F of Section 95) "beyond the use thereof "made by him before the alteration, there shall be borne "by the adjoining owner from time to time a due pro- "portion of the expenses, having regard to the use the "adjoining owner may make thereof:—

"(1) of raising or underpining such party structure "or external wall and of making good all such "damage occasioned thereby to the adjoining "owner and of carrying up to the requisite height "all such flues and chimney stacks belonging to "the adjoining owner on or against any such "party structure or external wall as are by "this part of this Act required to be made "good and carried up"

"(2) of pulling down and building such party fence "wall as a party-wall."

4. The Adjoining Occupier.

The adjoining occupier is now for the first time given, as such, some rights under the Act.

Under Section 93 the "adjoining owner and *occupier*"

is entitled to be compensated for any damage. Under Section 90 the *adjoining occupier* is entitled to the hoarding, shoring, and other protections given by Sub-section 2; and by Sub-section 3 the work is not to be done so as to cause unnecessary inconvenience to the adjoining owner or *adjoining occupier.*

And in Sub-section 1 of Section 90, the building owner may not, except with the consent of the "adjoining owner and of the adjoining occupiers," do any work unless he has served a notice on the "adjoining owner." If he serve that notice on the "owner," the "occupier" may, apparently, be ignored.

Now the only occupier previously recognised by the Building Acts, and the only occupier now recognised by Sections 88 and 95 of the Act as entitled to a notice in Section 90, Sub-section 1, is an occupier who holds an interest of more than a year's duration, and is therefore also an "owner."

Section 93 may mean (though I do not think it does) an adjoining owner who is also an occupier, in which case he gains nothing beyond what is given him by other parts of the Act, but Sub-sections 2 and 3, of Section 90, and probably also Sub-section 1, seem to show a right on the part of an occupier who is a yearly tenant or less.

That being so, how is such an occupier to make good his claim? Not being an owner under the Act he is not, I take it, entitled to the benefit of the machinery section of the Act, viz: Section 91, and there is nothing in the Act making an adjoining owner responsible to look after his occupiers interests.

It would, of course, be possible in most cases for the surveyor acting on behalf of an owner not being an occupier, to get an allowance in any settlement arrived at

amicably on behalf of the occupier, but there is nothing in the Act, nor I assume in common law, to compel him to do so, and in most cases he will hardly feel himself obliged to.

I take it, therefore, there will be nothing left for such an occupier but his right to take action under Section 200, but this expensive course would be hardly applicable to the majority of cases, and that section would not help him to get the work done as it should be, which is what would be more to his interest.

This seems a flaw in the Act, having regard to its intention to arrange for any difference that arises being settled by the surveyors, and to the disproportionate expense that the application of Section 200 would entail in the case of a small occupying tenant.

5. Rights of Adjoining Owner to Serve Counter Notice. Section 89.

Section 89 gives the adjoining owner power to require the building owner to build on any party structure such chimney copings, jambs, flues, or the like, as may be fairly required for the convenience of the adjoining owner, by giving notice.

In a recent case an attempt was made by the adjoining owner to import an entirely different meaning into the section, by serving upon the building owner a counter notice in which the nature of the work required by the adjoining owner under this section was specified as follows :—

"I claim that the wall referred to is a good and "sufficient structure for my purpose, and that if you "can, under the Sections of the Act, interfere with it for "any purpose of your own, such interference must be at

" your own cost and not to my detriment, and I require " you to erect a sufficient screen to protect my premises " and property during your proposed work, and that " you reinstate the wall to its present condition. That " the proposed work be carried out by you in conformity " with and in pursuance of Section 88, Sub-sections 7, 8 " and 9 and Section 95, Sub-section 2 (A), (B), (C), and (D), " with the least possible inconvenience to me. I object " to the wall being underpinned or raised or cut into."

This point, with others in the case, was subsequently brought by the adjoining owner before a magistrate, who issued a summons, complaining that the building owner having served a party-wall notice under Section 90, did not " make good any damage which you had occasioned " as aforesaid to the said walls and to the adjoining " owner and occupier of the premises in question . . . . " and do such things as you, being the building owner " under the terms of the London Building Act, 1894, " were required to do within a reasonable time for the " protection of the adjoining owner."

The words used are those of Section 200, but that section was not quoted.

The case was brought on two or three times, but the magistrate finally refused to go into the details of it, and forced the adjoining owner back to his statutory rights before the surveyors, evidently feeling that it needed technical handling.

The counter notice in question appeared to me to be an attempt to strain the purport of Section 87 altogether beyond reason.

The section also played a part in a decided case I am about to refer to, in connection with Sections 88 and 90, where it was made by the judge a ground of his decision although its applicability is not apparent.

6. The Exercise of Rights and Settlement of Differences between Building and Adjoining Owners. Sections 90 and 91 and their Variations from the Previous Law.

Under the Building Act of 1855, Section 85 in its twelve sub-sections, laid down the rules as to notices, appointment of surveyors, awards and the like, to be observed in respect of the exercise, by building owners and adjoining owners, of their respective rights.

In the Act of 1894, the place of that section is taken by two sections, Section 90 with its seven sub-sections taking the place of Sub-sections 1 to 6 in the Act of 1855, and Section 91 with its twelve sub-sections standing in the place of Sub-sections 7 to 12 in the Act of 1855.

It will be desirable to examine the differences, and this I now propose to do, leaving out mere verbal and immaterial variations.

The Exercise of Rights. Section 90.

1. The length of notice required in respect of a party-fence-wall by the 1894 Act was reduced from three months to one month, or to be more exact, as party-fence-walls were not included in the definition of party structures in the Act of 1855, a new provision to the above effect was inserted in Section 90 of the 1894 Act.

2. The length of notice in respect of party structures was reduced from three months to two months.

3. Not only must the building owner state in his

notice the *nature* of the proposed work, as in the Act of 1855, but he must also give *particulars* of it.

What should a Notice under Sections 88 *and* 90 *contain in the nature of a Description of the Works to be done ?*

An important case concerning this question was that of *Hobbs, Hart, and Co., Limited,* v. *Grover and Roe* (T. L. R., C. A., vol. xv. p 40), which went before both a Divisional and the Appeal Court in the autumn of 1898.

The facts are as follows :—

The plaintiffs and defendants were the owners of adjoining houses, between which was a party-wall.

The defendants proposed to pull down and rebuild their premises, and served a notice thus :—

"I the undersigned being the building owner of ..... " hereby give you notice that ..... I intend to exercise " the rights conferred upon the building owner by Sec- " tion 88 of the above Act in respect of the party " structure ..... that is to say: To execute such of the " following works to the said party structure as may on " survey be found necessary or desirable."

Here followed practically a verbatim copy of Section 88 of the Act and the date of the commencement of the work was given.

The plaintiffs objected that this was not sufficient notice under Section 90, as it did not state particulars of the proposed work, and applied for an injunction to restrain the defendants from interfering with the party-wall, from pulling down, cutting into, or underpinning, or raising, and from appointing any surveyor under Section 91, Sub-section 3, of the Act (the section giving the building owner the right to appoint the adjoining owners

surveyor if the latter neglects to appoint one for ten days after notice has been served upon him) until the trial or further orders.

The divisional judge thought that the earlier part of the notice was good, and was not clear that any of it was bad, but he had some doubt whether the defendants ought not to give fuller particulars as to the raising of the party-wall.

An order was eventually made by consent, that upon the defendants undertaking not to act upon that part of the notice which dealt with raising the wall, without giving the plaintiffs further notice (without prejudice to any question), and giving the plaintiffs inspection of the plans and a further period of ten days in which to appoint a surveyor, there should be no order upon the motion except that the costs should be the costs in the action.

The plaintiffs appealed.

The Court of Appeal intimated that the defendants' notice was not as clear in its terms as it should have been, and indicated the manner in which it ought to be amended.

The Master of the Rolls said that the notice ought to be so clear and intelligible that the adjoining owner might be able to see whether he ought to give a counter notice under Section 89 of the Act. This was the key to the matter. Each party to bear his own costs.

The above is taken from two reports of the case I have had access to, but I have been at some pains to get further details of what the judges thought the notice should contain, as it is a matter of great importance to surveyors acting on behalf of building owners, and by the courtesy of one of the parties and his solicitors I have received a copy of the amended notice that was

served in pursuance of the order of the court, the alterations being that the raising and underpinning was specified to be in accordance with the amended drawings annexed thereto, and that a description of the character of the building owner's intended new building, viz. that they were to be shops and offices, was added.

The judgment of the court, as must often be the case where intimate knowledge of the bearings of the technical sections of a technical Act is required, is not altogether easy to follow.

The decision that the first notice was bad because it did not give the adjoining owner the opportunity of giving a counter notice under Section 89, Sub-section 1, which simply gives the adjoining owner the right to require the building owner to build on any chimney "copings" (whatever they may be), "jambs, breasts, "or flues, or the like," appears to have sufficed in the judge's mind to justify a decision for the plaintiffs, but it would appear to a layman that there are more important reasons why a building owner, intending to do serious works to a party-wall extending to underpinning and raising, should be specific in his description of what he wishes to do to a piece of joint property.

An adjoining owner or his surveyor cannot possibly protect his interests unless he knows what is intended to be done, and although it may be thought that this could well be arranged between the surveyors, experience has taught me to believe that the path of safety as well as convenience lies in strict adherence to the rules laid down by Section 90 of the Act, translating them as meaning, where necessary and possible, a plan.

And Section 94, under which an adjoining owner is entitled to serve a counter notice, requiring the build-

ing owner to give security before commencing work to the party-wall, would have been a much more applicable section if a definite section were wanted, and may possibly have been what the judge meant.

Hoarding and Shoring.

4. An important addition was made to the law in Sub-section 2 of Section 90, whereby a building owner must, where he lays open any part of the adjoining land or building, "make and maintain . . . . . for a proper "time, a proper hoarding and shoring, or temporary "construction, for protection of the adjoining land and "building, and the security of the adjoining occupier."

Expiry of Notice.

5. By Sub-section 4 "a party-wall or structure notice "shall not be available for the exercise of any right "unless the work to which the notice relates is begun "within six months after the service thereof, and is "prosecuted with due diligence."

This has proved a useful addition in practice.

The Settlement of Differences. Section 91. *The Powers of the Surveyors.*

There is in the first part of Section 91 a sentence which appears to me to be ambiguous, and which might well be omitted when the Act is overhauled again by the legislature.

I refer to the words "not specially provided for by "this Act," at the beginning of the section.

It is presumably the intent and meaning of the Act, taken as a whole, that all "differences" arising between building and adjoining owners should be settled in the manner provided by the very section in which these unnecessary words are found, by surveyors appointed by the respective owners. If this interpolation is to be read as excluding from the powers of the surveyors so appointed all matters specially provided for by this Act, it would mean that the surveyors would never have the power to settle party-wall cases at all, for the very matters which may be the subject of a party-wall notice are those which the Act specially provides for in the several sections of Part 8, with any matters arising out of them, and I know of no matters which the surveyors may deal with which are not provided for by the Act.

What was doubtless meant was, that the jurisdiction of the surveyors was to extend beyond those matters specially provided for by the Act, to any which might arise out of or be incidental to a difference, but this is already provided for by words later on in the section; and if the right of action given by Section 200 is what is meant, the words are still superfluous, because jurisdiction is given to the surveyors in such a case by the words I have referred to.

Again, a little further down the section, the words "from time to time during the continuance of any work "to which the notice relates" have been interpolated in the Act in such a way as to make it arguable that no award at all is necessary except in respect to matters which may arise after the work has been commenced, as it was sometimes contended before the Act of 1894.

It is, however, of the essence of the adjoining owner's

rights that he should be able, through his surveyor, to protect himself within the limits of the Act as to what, how, and when work is to be done to a party-wall, and it is obvious that this can only be done before the building owner commences his work, indeed as we all know, except in special cases, it is the invariable practice for an award to be entered into before the work is commenced.

The power of an "owner," under Section 94, to require security before any work is done, would suffice in most cases to enable him to insist upon an award.

To make the matter clear I would suggest that the section be amended by the omission of the words "not "specially provided for by this Act," and by making the latter part of the paragraph run thus, "and such "one surveyor or two originally appointed surveyors or "third surveyor shall, before the commencement of any "work to which the notice relates, and as may be "necessary from time to time during the continuance of "any such work, settle any matter in dispute between "such building owner and adjoining owner, with power "by his or their award," &c.

These alterations would reconcile the general purport of the Act with the wording of this particular section, and incidentally reconcile the latter with common sense and grammar.

The Third Surveyor.

A very desirable simplification would be effected if the third surveyor were treated by the section (as he is in many ways, in fact, and as hinted at in the amendment I have just suggested) as an umpire, and if the

award were not required to be signed, except by the third surveyor, where a third surveyor has been called in. As things now stand, the award made by the third surveyor, which often may not be entirely acceptable to either of the other surveyors, must be signed by one of them to conform with the Act. What a deadlock would result if neither of the originally appointed surveyors would accept the award drawn by the third surveyor? Such a deadlock I have recently known to threaten several times, and it has only been got over by the use of considerable tact on the part of the third surveyor. I have heard it recently argued that the wording of the section allows the third surveyor to be treated as an umpire; the words "such one surveyor" being held to cover the third surveyor, but I doubt the accuracy of this, having regard to the context.

The other variations brought into effect by Section 91 are as follows:

Sub-section 8. Providing for the case of the death or neglect to act of a single surveyor, in cases where one has been appointed to act between the parties.

Sub-section 9. Similarly providing where the third surveyor has died or neglects to act.

Sub-sections 10 and 12 I quote almost in full as I have a comment to make upon them.

The Remedies where a Surveyor neglects or refuses to proceed.

Sub-section 10. "Where each party to the difference "has appointed a surveyor . . . . . if the two surveyors "so appointed refuse or for seven days after request of "either party neglect to select a third surveyor, or

" another third surveyor in the event of the refusal or " neglect to act, death or incapacity of the third sur- " veyor for the time being, a Secretary of State may, on " the application of either party, select some fit person to " act as third surveyor . . . . . "

Sub-section 11. " Where each party to the difference " has appointed a surveyor . . . . . then if before such " difference is settled either surveyor so appointed die or " become incapable to act, the party by whom such sur- " veyor was appointed may appoint in writing some " other surveyor to act in his place, and if . . . . . he " fail to do so the other surveyors my proceed '*ex* " *parte*' . . . . . "

Sub-section 12. " Where each party to the difference " has appointed a surveyor for the settlement of the " difference, then if either of the surveyors refuse or for " seven days neglect to act, the other surveyor may " proceed *ex parte*, and the decision of such other sur- " veyor shall be as effectual as if he had been a single " surveyor in whose appointment both parties had con- " curred."

In a case within my experience the relations of Sub-sections 10 and 12 came into question, the surveyor for the adjoining owner neglecting to select a third surveyor, though asked to do so.

Although the wording of the two sections is slightly different, it seems that both refer to such a case, for the refusing or neglecting to act in Section 12 would, I presume, include refusing or neglecting to join in appointing the third surveyor. If this be so, the party anxious to go on has a choice of either going (under Sub-section 10) to the Secretary of State, or, under Sub-section 12, his surveyor may proceed *ex parte*.

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The procedure of Sub-section 12 is temptingly simple, but it seems to me to be open to the objection that if any trifling formality in respect to the application of the other sections of the Act had been omitted, all proceedings taken by the single surveyor *ex parte* might be vitiated.

On the other hand it is proverbially difficult to move a Government Department.

I made an effort myself to move a Secretary of State, whose reply was, no doubt rightly, that he could not select a third surveyor without hearing what the other side had to say, which meant correspondence backwards and forwards, and, I suppose, arbitration before a Board of Trade official.

In the instance I am speaking of, a way was found out of the *impasse* by the adjoining owner bringing an action before the magistrate for damages, in which he was unsuccessful. We then got the business through, but if any member present has either got an appointment out of the Secretary of State, or acted *ex parte* under Sub-section 12, I am sure we all shall be glad to hear the result.

It is well to note that Sub-section 10 deals with the case of *two surveyors* refusing or neglecting to select a third surveyor after request by one or *either of the parties*, so that in order to bring that section into play, the *parties* desiring to act must first serve a notice upon the two surveyors requiring them to select a third surveyor.

The provisions of Sub-sections 2, 3, 4, 5, 6, and 7 of Section 91, dealing with the award, with the appeal to a county court judge or high court judge, with default of either party in appointing a surveyor, and with costs, do not vary the Act of 1855.

7. Power for Building Owner to enter Premises. Section 92.

The only new provision in this section which gives permission to the building owner to enter the adjoining owner's premises for the purpose of executing any work which he is entitled to do under the Act, is to the effect that before so entering he must, except in a case of emergency, give 14 days' notice of his intention to the owner and occupier, and, in a case of emergency, such notice as may be reasonably practicable.

8. The Building Owner's Liability to Underpin in the Case of the Erection of a Building within Ten Feet of an Adjoining Owner's Building, to a Lower Level than the Foundations thereof. Section 93.

This is a new section in the Act of 1894, and its interpretation in connection with the rest of the Act, particularly Sections 88 and 95, has given rise to a number of questions.

By it certain liabilities are placed upon the building owner in such a case, and corresponding rights are conferred upon the adjoining owner beyond those given by Sections 88 and 95.

The building owner's rights are detailed in the same way as in Section 88, and machinery as to notices and the like, somewhat similar to that in Section 90, is provided, but there is no special machinery for the settlement of differences, which would therefore presumably come under Section 91.

The section provides that "where a building owner "intends to erect, within ten feet of a building belonging "to an adjoining owner, a building or structure, any "part of which within such ten feet extends to a lower "level than the foundations of the building belonging "to the adjoining owner, he may, and if required by the "building owner, shall . . . . underpin or other- "wise strengthen the foundations of the said building "so far as may be necessary, and the following pro- "visions shall have effect."

The provisions referred to place a considerably greater liability upon the building owner than do those under Sections 88 and 95.

For instance, by these the notice which the building owner is to serve must be "accompanied by a "plan and sections showing the site of the proposed "building, and the depth to which he proposes to "excavate;" to create a difference the adjoining owner must "within 14 days after being served with such "notice, give a counter notice in writing that he disputes "the necessity of or require such underpinning or "strengthening . . . ." and (most important of all) the building owner is liable "to compensate the adjoining "owner and occupier for any inconvenience, loss, or "damage which may result to them by reason of the "exercise of the powers conferred by this section."

There are several ways of reading Section 93, having regard to its relations with Sections 88 and 95.

One way is by taking Section 88, Sub-section 1, giving the building owner "a right to make good, under- "pin, or repair any party structure which is defective "or out of repair," and Sub-section 6, giving him "a "right to raise and underpin any party structure per-

" mitted by this Act to be raised or underpinned, or " any external wall built against such party structure, " upon condition of making good all damage occasioned " thereby to the adjoining premises, or to the internal " finishings and decorations thereof . . . . . " with the corresponding sub-sections in Section 95, viz. 1A and 2B, providing for the expenses of the work done in such cases being borne by the building owner,—as referring exclusively to party-walls, and the underpinning of them, and Section 93 as not affecting party-walls, but applying only to buildings being erected by the building owner at some distance, but not more than ten feet, from the adjoining owner's premises.

The case in favour of this hypothesis may be put thus :—

Sub-section 1 of Section 88 confers upon the building owner the right to underpin or repair a defective party structure.

Sub-section 6 confers upon him a right to raise and underpin a party structure which is not defective or out of repair.

If then Section 93 also gives a right to underpin a party-wall, such a right would be so far unnecessary, as it has already been conferred, and having regard to the inconsistency between the provisions of Sections 93 and 88, had it been intended to limit any of the rights conferred by Section 88, by the provisions of Section 93, there would have been something to that effect in Section 88. That this is so is emphasised by the fact that, in Section 93, the rights given are distinctly stated to be subject to the conditions which follow in the sub-sections, and although there is nothing in Section 93 excluding in so many words the underpinning of a

party-wall, if the building owner is going to *erect* a building deeper than the adjoining foundations, it does not seem absolutely certain, on a strict reading of the section, that it applies to the case of a building owner merely deepening his basement or forming a new basement and so requiring to underpin, unless these operations could be described as the erection of a building or structure. The word "erection" may be held to mean "construction," but do the words "building" or "structure" cover such an operation?

Sub-section 4, providing that the section is not to "relieve the building owner from any liability to "which he would otherwise be subject in case of injury "caused by his building operations to the adjoining "owner" seems to support this contention, for the building owner's liability, in the ordinary case of a party-wall being underpinned under Section 88, is limited, so far as compensation is concerned, to the rights given under the Act in Section 95, Sub-sections 1A and 2B.

Upon the other hand, in support of the view that the rights given to adjoining owners, by Section 93, of requiring underpinning, arise in the ordinary case of the underpinning of a party-wall, where the building owner's intended building will go lower than the foundations thereof, it must be pointed out that Section 88 does not, in Sub-sections 1 or 6, impose any liability upon the building owner to underpin a party-wall, and if Section 93 does not apply to such, a building owner rebuilding premises divided from another by a party-wall, although carrying some part of his building within ten feet of the party-wall and to a lower level, could not be compelled to underpin the party-wall under the Act.

In such a case we should have the anomaly of the building owner being liable to underpin all the adjoining owner's foundations, except the party-wall, under Section 93, and not being liable, though having the right, to underpin the party-wall under either Sections 83 or 88.

It is to be remembered, however, that before 1894, when there was no Section 93, party-walls requiring underpinning in such cases were invariably underpinned under the then existing sections of the Act, by virtue of the general words in Sub-section 1 of Section 91, giving the surveyors power to settle generally any other matter arising out of or incidental to the difference.

And it seems clear that if it is right that an adjoining owner should be entitled to the compensation given in Sub-section 3 of Section 93, in the case of an independent building being erected near him, necessitating underpinning to his foundations generally, it is illogical that he should not possess the same right when the portion of his building to be underpinned consists of a party-wall.

I take it, however, that if a building owner carried any portion of his building, other than the party-wall dividing the two buildings, lower than the foundations of the adjoining owner's building and within ten feet of it, he would be bound to serve a notice under Section 93, so far as the adjoining owner's general foundations were concerned, although not so far as the party-wall was concerned.

A further difficulty in the translation of the section arises out of the fact that it is a "building owner" only who gains the right and is made liable to underpin

under the section, and an "adjoining owner" alone who is given the right to insist upon underpinning, and as these relationships only exist, under the Definition Clause, where a party-wall exists or is about to be erected, the very case of an independent building being erected near but not immediately contiguous to another building — which certainly the section was meant to include if it was not meant to do so exclusively— would seem to be excluded by a strict reading of the section.

Surveyors manage to settle these points as they arise with, I hope, substantial justice, but I trust it is not asking too much of some of our legal Associates that they should help us with their opinion upon the legal aspect of the question, which it will be seen, from what I have said, may be described as somewhat involved.

To me it seems, however, that the sections need recasting to be absolutely reconcilable, whichever hypothesis be adopted.

9. Should Sections of the Act be necessarily Quoted in Notices.

Out of this discussion upon Section 93 arises the question as to how far it is necessary, in order to bring that and other sections into play, to quote them in notices and awards.

A common form of party structure notice to be served by the building owner on the adjoining owner is headed "57 and 58 Vict., cap. 213, Sec. 90," and another is "Sections 88 to 92 inclusive."

Section 90 only is quoted at the head of the usual requisition notice from the adjoining owner to the building owner under Section 89, and Section 89 as well as Section 94 as to security are quoted on the back of the notice.

In the case of an external wall notice under Section 87, in the common form: that section is quoted at the head, and Section 93 is quoted at the head of the common form of notice under that section.

The question arises, what would happen in such a case as this? A building owner serves a form of notice headed only Section 90, and no notice is served under Section 93, nor is one asked for by the adjoining owner. The building owner underpins a party-wall, carrying his new building considerably lower than the old one. An award is entered into with the same heading as that on the notice, quoting only Section 90, but in the body of the award reference is made to the fact that all the work executed under it is to be carried out under "Sections 87 to 101, Part 8 of the above recited Act, or "such of the same as have not already been complied "with."

The work is done, including underpinning to the party-wall, but not to the adjoining owner's foundations, and damage accrues both to the party-wall and to the adjoining owner's premises.

It is contended by the adjoining owner that Section 93, with its important compensation clause, applies, but the building owner argues that Section 93 does not apply, that the notice was not served under that section, and that although all these sections are quoted in the award, they are only quoted so far as they apply.

10. Security for Expenses, Costs, and Compensation. Section 94.

By Section 87 of the Act of 1855, an adjoining owner was given the power to require the building owner, before commencing any work under the Act, to give security, either to be agreed upon or, in case of difference, to be settled by a judge of the county court, for the payment of all such costs and compensation in respect of such work as may be payable by the building owner.

This clause was re-enacted in Section 94 of the 1894 Act, with the addition of the word "expenses" before "costs and compensation," and also with the addition of a paragraph giving the building owner the right "at "any time after service on him of a party-wall or party "structure requisition by the adjoining owner, and "before beginning a work to which the requisition "relates, but not afterwards," to require the adjoining owner to give him "such security for payment of the "expenses, costs, and compensation for which he is or "will be liable as may be agreed upon or, in case of "difference, may be settled as aforesaid."

It would appear from the wording of the section that the building owner's right in this respect only arises in respect of an adjoining owner's requisition under Section 89, as to building of chimney jambs and the like, for there is no other section giving an adjoining owner a right to require the building owner to do anything, but I have quite recently heard it urged that this right on the building owner's part is general in

character, in the same way as that given to the adjoining owner by the first part of the section. It does not appear to me, however, that such a contention can hold water.

A question has been raised as to whether the words " expenses, costs, and compensation " bring in a claim for legal and surveyor's costs.

Nowhere in the Act, except in two cases I am about to mention, is anything more than the " expense " of doing work dealt with. That is the form of words adopted all through Section 95.

That such costs may be claimed in regard to Sub-section 2B of Section 95, or under Sub-section 3 of Section 93, is more arguable, because such expenses might be held to be covered by the words " and a fair " allowance in respect of the disturbance and incon- " venience caused to the adjoining owner," in the first of these sections, and more clearly by the words "incon- " venience, loss, or damage which may result to the " adjoining owner or occupier " in the last. There is no other section which would specifically cover such an item.

Perhaps in such a case we must have recourse again to the general words in Section 91 which we surveyors have been in the habit of making cover a multitude of omissions and difficulties in the rest of the Act.

I think the position of the matter of party-walls under the 1894 Act may be thus summarised.

That there are many variations from the previous law, the effects of which have not yet been fully understood.

That there are a number of flaws in the drafting of the Act which need amendment.

That there are some points in which it is desirable the Act should be amended in the interest of its ready and fair administration, and that there are others which we need the help of the lawyer to settle.

It is in the hope that this Paper may conduce to the clearing up of some of these difficulties that it has been written.

Mr. Howard Martin (Fellow), in proposing a cordial vote of thanks to the author of the Paper, said the subject dealt with in the Paper was one of so extremely complicated and obscure a nature, that it was almost impossible to express any opinion on it which would be generally accepted. It was, therefore, particularly pleasant to be able to open the discussion with a proposition everyone could accept—a hearty vote of thanks to Mr. Pilditch for his Paper, which appeared to him to be a very valuable one, not only on account of its exhaustive description of the Act and its provisions, which made it valuable for purposes of reference, but because it brought forward many doubtful points which required discussion. It no doubt opened the way to a wide discussion of the whole matter by Members who were qualified by their professional experience to throw light on the points in question.

He had himself been recently brought into contact with one defect in the Act. As Mr. Pilditch had said, there was a section which provided that if operations did not commence under a notice within six months of its service the notice became void. That was in some cases

a very valuable means of overcoming obstruction, but it might be made a means of causing obstruction unless there could be found some easier way of forcing the appointment of a third surveyor. He, like Mr. Pilditch, would be very glad to hear whether anyone had succeeded in getting the Secretary of State to appoint a third surveyor on the adjoining owner's default, or had proceeded *ex parte*. He was concerned in a case where the adjoining owner refused to let his surveyor appoint a third surveyor, and availed himself of every possible and frivolous excuse for delay until the six months were nearly at an end. The Secretary of State was then applied to by the building owner to appoint a third surveyor, and after some six weeks' correspondence he absolutely refused to do so, because, he discovered that there was a difference of opinion.

It appeared to him (the speaker) that the application would not have been made unless there had been a difference of opinion. Then the adjoining owner said "as the six months has expired the whole matter must "be begun over again." This, he thought, was an example of one of the defects in the Act, for which he should be glad to hear some remedy suggested.

Mr. H. T. Steward (Fellow) said he had much pleasure in seconding the vote of thanks to the author of the Paper, which, however, dealt so fully with the many details of the Act that it was impossible to discuss it usefully without a careful study of the various points, and he therefore moved the adjournment of the discussion until the next meeting. This motion he made on behalf

of his friend Mr. Blashill, who was unable to be present at the reading of the Paper.

The vote of thanks having been put and carried unanimously, the discussion was adjourned to the meeting of December 11th.

AT

THE ORDINARY GENERAL MEETING,

Held on Monday, December 11th, 1899.

THOMAS MILLER RICKMAN (President) in the Chair.

The adjourned discussion on the Paper read at the last Ordinary General Meeting of The Surveyors' Institution by Philip E. Pilditch (Fellow), entitled "Party-walls under the London Building Act, 1894, was resumed by

Mr. THOMAS BLASHILL (Fellow), who said there were a few practical points that he should like to mention, and, having done that, he would imitate the author of the Paper by not attempting to deal with the legal points which had been raised, although he might, perhaps, suggest one or two more himself. He was not altogether surprised at the opinion expressed by Sir John Bridge as to the Building Act*. The fact was the Act suffered, if one might say so, from over-nursing. The Building Act Committee at that time was a very good natured one (and probably the same description would apply now), and in the innocence of their hearts they thought that if they let everybody know what they were going to do and consulted with everybody, all opposition would be ended before they got into the Committee Room. They consulted, among other bodies, the Surveyors' Institution, which, with all the other bodies—some 9 or 10 in number—set to work on the

* Page 21 *ante.*

Bill with the utmost enthusiasm, assisted by eminent Counsel, and in course of time the Bill got into the Committee Room. When there, everyone of these bodies appeared by solicitors and counsel against the Bill—the Surveyors' Institution, among the number. In the result so many amendments were discussed that it would have been a marvel if anybody remembered where they were, or could retain a grasp of the whole measure.

He thought that very few surveyors had an adequate amount of reverence for that creature of legislation called a party-wall. One heard people talking of "my half of "the party-wall, and the adjoining owner's half of the "party-wall." But no such thing existed as two halves in a party-wall. He remembered a very apt illustration used by a well-known surveyor in this connection. There were, he said, two showmen who were partners in an elephant, and when they dissolved partnership, the question arose how the property should be divided between them. One of them said, "I shall shoot my half of the "elephant," but the other answered "You cannot do "this, you have not a half; we are partners in the whole "of it."

It was important to bear in mind that a party-wall was a thing in which two persons were partners, who should behave to each other as partners throughout. It was not a thing to be dealt with antagonistically, as might be done, for instance, in a light and air case, and so important had the legislature thought this to be, that it had from time to time laid it down that such matters should be settled by surveyors appointed in a certain way, and without raising more purely legal questions than was absolutely necessary.

He was afraid that most surveyors must confess to having in times past followed a very common practice

in delivering party-wall notices. They had thought it right to put into them everything which the Act specified, without giving the adjoining owner any idea which of such things they intended to do. The person who served the notice served everybody alike, without any drawings or illustrations; and the adjoining owner had to find out in the best way he could what was really meant to be done. This, of course, threw the adjoining owner into a state of very natural alarm. It sent him to his surveyor, who very likely passed him on to his solicitor and a question of law at once arose. The best way was—it was, he thought, decided legally now, and ought to be practically understood—that the building owner should, from the very first, tell the adjoining owner precisely what he intended to do, of course in writing. That was very much better for everyone, for they then knew precisely whether there was anything to fight about. If there were nothing to fight about, the matter would, in all probability, be settled very quickly, with the aid of the third surveyor, who, as everyone ought to know, must be appointed before the two surveyors originally selected began their negotiations, though it might turn out that they did not require his help at all. The award must be made, not by two persons, but by two out of three.

He was afraid he could not quite agree with Mr. Pilditch and those who thought that the third surveyor practically did, and really ought to, act as an umpire. He thought it would be much better that the third surveyor, if called in, should discuss the matter and should agree at least with one of the two, or get him to agree with him, so that one of the two surveyors might actually feel himself responsible for the award when it was taken up and practically acted on and carried through.

He was once concerned in a very important case where the parties on both sides happened to be trustees. The trusts of both would expire long before the party-wall question could be finally dealt with, and being, he supposed, afraid of what might be said to them at the end of their term, it had been thought best that a third surveyor should be called in on the question. The two surveyors met and discussed what they thought was necessary and presented a report to the third surveyor, who went carefully into the whole matter as if it had never been gone into before. In the end, he believed, he agreed with them. He took so much pains in the matter that if he had not agreed with them he must have argued the matter out with them, but he did ultimately join them in every term of the original draft award.

In addition to the questions raised by Mr. Pilditch, two or three had occurred to him which he thought might usefully be put. It very often happened that an adjoining owner or a neighbour put up a building of his own (it might be a very small one), against the external wall of the next door man, and, by so doing, endeavoured to give to the wall against which he had built, the character of a party-wall. The next door man might know nothing about it. Now was that wall to be treated, when the time came for the rebuilding on either side, as a party-wall ?

He should like to put it whether the case was not thus : The owner in question had omitted to do what the law said he was to do, namely, to enclose the building with an external wall, and he had abutted his building against the adjoining owner's wall. Could that wall be said to separate the two buildings ? He suggested that it did not, and that the new building finished at the

exterior of the old building, and that the wall should not therefore be treated as a party-wall. There might be a legal decision on the point, but he did not remember one.

A building owner who desired to build within 10 feet of the premises of an adjoining owner must give notice. The question had often been asked whether, in a case where he had pulled down the building, leaving his party-wall standing, and had not intended to build against it, but 9 feet from it, he was bound to give notice. That he thought was a lawyer's question, and he would not attempt to settle it. Possibly some legal Member would enlighten the meeting on this point.

There was another point. An owner pulled down his house (he would not call him the building owner yet, until he knew more about him), and left the previous party-wall between himself and his neighbour standing. He had no intention whatever of rebuilding his house, and all he could possibly want to do for security was, possibly, to put a shore against the wall, or he might stop any hole which he happened to see in it, and might go the length of protecting his neighbour, and no doubt doing his duty in that way by cementing the face of the old party-wall. Now in either of those cases was it necessary for him to give a party-wall notice ?

He mentioned those things as among a good many others that might be worthy of discussion, and on which one might wish to be a little more clear as to ones' duty, in the hope that the questions which Mr. Pilditch had put, and to which he had ventured to add one or two more, might be answered. With regard to a good many of these questions he should have been glad if they were unnecessary. He thought, perhaps, they arose from too great an anxiety on the part of the framers of the Act to settle every question by law if they possibly could.

If they had said less (he did not know whether it was possible) and had left more to the surveyors, it would have been a great deal better. There were, he thought, very few questions with regard to party-walls which could not be settled by two surveyors with the help of a third. But if there were to be so many legal points capable of being raised about party-walls, it made it almost necessary, in any but the simplest cases, to have a legal body to settle matters in the end, although he might say that he desired to enter a mild protest against that course of procedure.

He would conclude with an expression of the great pleasure he had derived from Mr. Pilditch's very useful Paper.

Mr. WILLIAM WOODWARD (Fellow), said those members to whom fell the duty of serving party-wall notices would fully appreciate the difficulties which Mr. Pilditch enumerated in his Paper.

One very important point raised by Mr. Pilditch, and referred to by Mr. Blashill, was the service of the party-wall notices. It was the custom some years ago to serve only one party-wall notice, in respect of any one building, until the case of *Fillingham* v. *Wood*,* when the Master of the Rolls decided that any occupier, or any lessee or owner of a building who had an interest above an annual tenancy, however many these might be, should be served with a party-wall notice. Now this involved very considerable trouble in finding out who all those persons might be and serving each of them with a notice.

The important question was raised in the Paper whether the Act of 1894 was intended to destroy this decision of the Master of the Rolls—whether, under the Act as it now stood, it was or was not necessary to serve

* *Professional Notes*, vol. iv. p. 381.

only one party-wall notice upon the owner of the adjoining premises. He at one time had occasion to discuss that question, and had taken counsel's opinion on it, which was to the effect that under the Act of 1894 it was only necessary to serve one notice, and that the service of that notice was sufficient, if it was sent by registered letter or attached to the entrance doorway of the premises. Mr. Pilditch, in his Paper, did not quite determine whether or not that rule, or that opinion, might be sufficient. He did not attempt, of course, to lay down the law, but all he could say was that he had consulted counsel on that subject, and this was the opinion given.

The last speaker had said that, in his opinion, it would have been better if there had been less left to the lawyers, and more to the surveyors. In that opinion he of course quite concurred; for he believed that the more an Act of Parliament was made to fit into the particular circumstances of each case, the more justice would be done, and the better it would be for all parties. He was sure that no gentleman in that room had a desire to under-estimate the importance of the legal aspect of their proceedings; but he felt that if lawyers would confine themselves to the particular part of the work for which they were qualified by training, it would be much better, and the less they interfered with the working of builders' and surveyors' matters, the better it would be for the building, and the better for the rapid carrying out of the work which they, as architects and surveyors, had to take in hand.

On page 23 of the Paper, Mr. Pilditch referred to the procedure laid down by the Act with reference to notices, and upon this Mr. Blashill had made some observations.

The author of the Paper went on to say "It has

"always appeared to me to be much more easy when "the Act is understood, notwithstanding its difficult "points, to settle a case in accordance with it, than to "trust, if acting for the building owner, to the adjoining "owner not being alive to his rights or to the chance of "no untoward accident occurring during the progress of "the works." That was with reference to the information which a surveyor should give in party-wall notices when serving them upon adjoining owners. He quite agreed that every party-wall notice should be accompanied by a block plan and block section, showing exactly, or as nearly as could be ascertained, what was proposed to be done to the party-wall; but the difficulty was, that unless there were included in such a party-wall notice more than was required to be done, one might find that some surveyor or architect would pull one up, because the particular details which it might afterwards be found necessary to carry out had not been specifically mentioned. Therefore a wise man embodied all that it was possible to embody in his party-wall notice. But he ventured to say, that if architects and surveyors dealt fairly, and accompanied the notices with drawings showing what they proposed to do, and left the matter to the fairness of those appointed to deal with it afterwards, Mr. Pilditch's suggestion would be met.

On page 24 Mr. Pilditch gave a definition of a party-wall. He was not quite sure that Mr. Pilditch included all which was now understood as a party-wall. He defined it very clearly, but he thought he omitted the particular point that if a man rebuilt a wall and carried it to a greater height than was necessary to separate the two buildings, the portion of the wall that was carried up to a greater height than did separate those two occupations became,

by a decision he need not refer to, an external wall. A man had a right to place windows in the upper part of such a wall, and the wall had all the rights appertaining to external walls, including the provision that the adjoining owner had no right whatever to close the windows in the upper part of the wall, unless he could protect himself in the way usual in questions as to rights of light.

Then Mr. Pilditch referred, on page 25, to a very important point; "Who is the adjoining owner?" He thought if there was one part of the Act of 1894 more indefinite than another it was that dealing with who was the owner? In one section of the Act, as Mr. Pilditch said, one found the word "owner" only, and in another "owner" accompained by the word "occupier." Looking at the matter from a common sense point of view, it appeared that there were to be considered the ground landlord, the lessor, the lessee and the tenant with perhaps an occupation of three years. If the demolition of a party-wall affected one of those persons, it seemed to be only common sense to infer that it affected all of them, and therefore that each was entitled to be told what it was proposed to do to the wall. For example, one man might have a tenancy under a lease or agreement of the two lower storeys of a house , and another man of the two storeys above him. It was obvious that the demolition of the party-wall affected both these tenants almost in the same way, and therefore it seemed equally obvious that the party-wall notice should be served on each of them, in order that they might protect themselves, or see that their interests were looked after in the matter of pulling down and rebuilding the party-wall.

It might seem that he was differing somewhat from

the counsel's opinion which he had quoted, that it was necessary to serve a notice only on one man, for the man on the ground floor might receive the notice, but there would be no obligation on him to transfer it to the man on the second or the third floor. But when it came to pulling down the wall, the man on the second or third floor might well ask why he was not served with a notice in order that he might protect his interests ?

The questions of the necessity for serving a party-wall notice on the owner, or of deciding who was the owner, and whether it was right only to serve it on one man, or whether it must be served on the others, or whether the Act of 1894 confirmed the decision of the Master of the Rolls, were to his mind, of the greatest importance as affecting surveyors in the service of party-wall notices.

Then on page 32, Mr. Pilditch referred to the right to underpin. That was a question of some importance, for the wording as to the responsibility of the building owner for underpining, under Section 93, Sub-section 3, referred to under-pinning within ten feet of the party-wall, and was not quite consistent with the wording of the ordinary underpinning section. His own opinion was that this wording referred wholly and solely to underpinning within ten feet, and, as Mr. Pilditch knew, for he had been engaged in cases of extreme importance under this particular section, there was a word introduced into the section which was not in the ordinary underpinning section. The result was that in following out that underpinning section, if, in carrying out works a building owner inflicted damage on the adjoining premises, he was not only liable for making good the structural damage, but was also liable for any loss which might be sustained by the tenants of the adjoining premises. It was a most important clause, and if there

were any amendment to the Act he trusted that words would be introduced in Section 93 similar to those in the ordinary underpinning section, or vice versa.

Then, on page 41, Mr. Pilditch referred to "the "exercise of rights." Now, an owner had certain rights under the Building Act, and he was under the impression that so long as he conformed to the Act itself he was entitled to exercise his rights, but not to exercise them in the case of a party-wall until two months had elapsed Personally, he was under the impression that, if an award were made, then, supposing no reference was made to the third surveyor when the two months had elapsed, an owner was entitled to proceed in the exercise of his rights. He remembered being pulled up in a case where the surveyor to the adjoining owner was desirous of exercising a little pressure on him with regard to rights of light. When the award had been made, or at all events when they had settled the basis of the award, though it was not signed, he (Mr. Woodward) said: "I "propose to proceed with these works at the end of two "months." He waited the two months and was then met with a refusal to allow him to proceed. It seemed that insertion of the words "two months" was entirely unnecessary. If he could not proceed with the exercise of his rights at the end of the two months, then the words were absolutely misleading, because it was obvious that he could not proceed with the work under a party-wall notice until he had agreed with the surveyor on the other side or, if necessary, with the approval of the third surveyor.

With regard to "the third surveyor," he quite agreed with Mr. Pilditch that there was considerable difficulty involved in the appointment of a third surveyor, and he thought with him that the third surveyor should sit as

an umpire. He was practically an umpire, and there was no reason whatever why he should not be termed an umpire, or why his powers should not be those of an umpire. He thought that he should make his award, and that it should not be necessary for either of the two surveyors to sign that award. It sometimes happened that neither of the two surveyors would sign the award, and thus the third surveyor was put in the unhappy position of an arbitrator whose award was not taken up and whose fees were not paid. In that respect he thought that in any amendment of the Act the third surveyor should be treated as an arbitrator, and should be required to act under the Arbitration Act as in an ordinary case of arbitration.

Reference had been made by a previous speaker to an appeal to the Secretary of State to nominate a third surveyor. He might say that he had himself not long ago appealed to a Secretary of State, and within seven days that Secretary of State appointed a distinguished member of the Institution and there was no difficulty whatever.

Mr. Frank Newbolt, Barrister-at Law (Visitor), said that, at the invitation of the author of the very interesting Paper read at the last Meeting, he ventured to offer some observations on a few of the purely legal questions which the Paper raised. Before dealing with these specifically, he would notice in passing the case of *Hobbs* v. *Grover** discussed by Mr Pilditch. The words "divisional" judge in the Paper were an obvious misprint for "vacation" judge, and the order was not made by Channell, J., "by consent," or there could not have

* *Professional Notes*, vol. ix. pp. 234, 236.

been an appeal to the Court of Appeal. The *Times* report was unintelligible, because Section 89 was misprinted throughout as Section 91.

The questions with which he proposed to deal were as follows;

1. Are the words "not specially provided for by this "Act" (in Section 91) superfluous?
2. Are the surveyors appointed under the section to settle differences given jurisdiction to act *before* the building owner commences his work?
3. Is the third surveyor an umpire? and can the words "such one surveyor" be taken to refer to him?
4. What is the relation of Sub-sections 10 and 12 of Section 91?

These questions were to some extent dealt with by Mr. Pilditch, but he did not direct his attention to two others, viz.:

5. Are the surveyors appointed by the parties and acting with the third surveyor to act as judges or advocates?
6. Have the parties the right to appear before the three surveyors by solicitors or counsel?

He regretted that Mr. Pilditch's suggested amendments to Section 91, which, as he said, "incidentally "reconcile the wording of the section with common "sense and grammar," were not law; until they were, lawyers, as such, had nothing to do with them. He was sorry that in Mr. Pilditch's opinion the third surveyor was invariably treated in fact as an umpire, for he had come to the conclusion, as he would presently show, that notwithstanding the confusion introduced by the decision

of V. C. Malins in the case of *ex parte MacBryde* (4 C. D., 200), he was not so in law, but occupied quite a different position.

Dealing with Question 1, the words "not specially "provided for by this Act" must be understood, it seemed, to mean "not elsewhere specially provided for." He did not think that the phrase was open to the charge of absurdity which Mr. Pilditch brought against it. It seemed to him to be simply superfluous, and to have no meaning at all. If he felt himself at liberty to speculate, he should be inclined to think that either there was at one time in the Bill a special method of assessing compensation under Section 88, afterwards struck out, or that some one inserted the phrase with the intention of striking out the restrictive words which followed, an intention not carried out. It would, however, be useless to waste time over this. He agreed with Mr. Pilditch's conclusion, though hardly with his reasoning.

With regard to Question 2, he thought the surveyors had jurisdiction to act before the building-owner commenced his work—notwithstanding the difficulty created by the words "during the continuance of any work"—because they were given power by their award to determine "*the right to do . . . . any work,*" and it would not be much use to determine during the continuance of any work, that there was no right to do it. He was therefore not surprised to hear that it was almost invariably the practice for an award to be entered into before the work was begun. As Mr. Pilditch pointed out, the adjoining owner could require security before the building-owner commenced any work, but unfortunately he had to go to the County Court for that, although a totally different tribunal would assess the compensation due to him. He could, however, appeal

from the surveyors, when he would find himself back in the County Court where he would leave him.

As to Question 3: "Is the third surveyor an "umpire?" he would say certainly not in law, and he doubted if he could be said to be so in fact: for as Mr. Pilditch himself pointed out, a deadlock sometimes threatened because the third surveyor had not the power of signing the award by himself. The third surveyor was independent because he was not appointed by either party. He was appointed by professional men who might know him only by reputation, and who agreed in his appointment because they thought he would act with ability and fairness; but when he was appointed his position was exactly the same as that of the other two. He had no more and no less power than they had. He had not to decide disputes between them: he was not the judge to be affected by their advocacy. All three were joint arbitrators or judges, and, if the Act had not specially provided for it, their award would be in law invalid and worthless if signed by only two of them, instead of by all three.

It would perhaps make this point clear if he referred to the case of *Smith* v. *Nelson*, 25 Q.B.D., 545 (recently decided by the Court of Appeal) where by agreement all matters in dispute were to be referred to three persons, the decision of any two to be final, and one of the parties refused to nominate. It was held that there was no power to make him do so, and no power under the Arbitration Act to do so for him, this particular tribunal of three equal arbitrators being for this purpose outside the Act altogether.

It had, Mr. Pilditch said, been recently argued that the words "such one surveyor" referred to the third surveyor just as if the expression was "such third surveyor," but

that he doubted the accuracy of this interpretation. Speaking for himself he could feel no doubt on the point. "Such one surveyor," it seemed to him, could only refer to the "one surveyor," in whose appointment as sole arbitrator both parties concurred.

The confusion which existed as to the position of the third surveyor was increased by the case he had already referred to, *ex parte MacBryde*, 4 C. D., page 202, when the V. C. said, referring to the two surveyors: "It was "their duty to appoint a third surveyor *as umpire*, who "might decide upon any difference that should arise "between them." Surely this was an entire misconception. There was in that case an arbitration under the Act of 1855, under the same words as were used in the present Act (1894), *i.e.* a reference to one or three surveyors, and the Court appointed a third surveyor under Section 12 of the Common Law Procedure Act, 1854, now repealed by the Arbitration Act, 1889. The order of the Court followed the words of the Act under which it was made, *i.e.* the Common Law Procedure Act, 1854, and therefore appointed "an umpire or third "arbitrator." The Act of 1855 had no reference to an umpire from beginning to end.

The Arbitration Act seemed inconsistent with, and therefore (by Section 24) inapplicable to, the London Building Act, 1894. This was unfortunate as it would simplify matters very much to apply to a Judge in Chambers, under Section 91 (10), instead of to a Secretary of State.

This brought him to the fourth question: "What is "the relation of Sub-sections 10 and 12 of Section 91?" Indeed it was not clear. Where each party had appointed a surveyor the first duty of those two surveyors was to appoint the third, and their not doing so would be

apparently neglecting to act. The one not in default would then be entitled to proceed *ex parte* by Sub-section (12), but for neglect to do *this particular act* a special remedy had been already provided by Sub-section 10, and in these circumstances a surveyor would not be well advised to proceed *ex parte*. Sub-section 10 seemed to contemplate a case in which both surveyors might be in fault, or neither, if they simply could not agree, and the parties might wish to quicken their steps, but he thought it would be unwise not to prefer the special to the general remedy, more especially as "to act," *i.e.* to act as a surveyor and arbitrator, did not, it might be argued, necessarily include selecting a third surveyor.

The fifth question, "Is the surveyor of a party when "acting as one of the three surveyors a judge or an "advocate?" would surprise any judge of the High Court who happened to hear it asked, as he would wonder how anyone could be so ignorant of first principles as to ask it; but ordinary men of business who never read a law book or a law report often, he might almost say generally, took the opposite view, and parties to arbitration very often thought that the arbitrators they nominated are appointed to fight for them before the umpire. Unfortunately this very Act, unless carefully examined, seemed to give colour to the suggestion, for by Section 107 it would be found that in an arbitration about a dangerous structure, the surveyor appointed by the owner did properly act as his advocate, as against the district surveyor, and the third surveyor called in had to decide between their respective "contentions," and the owner had to pay the costs "in the event of such "determination being adverse to the *contention of the* "*owner's surveyor.*" But, notwithstanding what seemed a defect in drafting this section (Sub-section 4), it was

clear that when the two surveyors had failed to agree, and had referred the matter in dispute to the third surveyor previously appointed, the latter was *the arbitrator, the sole arbitrator,* and the award was made by him alone. He was not an umpire. In such a case it was quite right that the surveyor of the party (generally, he supposed, if not always, the surveyor upon whose advice he decided to fight the County Council) should represent him before the arbitrator, and show why he disputed the necessity of the requisition.

But in arbitrations under Section 91 the surveyor was in a different position. In the eye of the law he was a judge, and although he was at liberty to act on his special knowledge he must not forget that his functions were judicial. Judges many and great had over and over again repudiated the notion that a mercantile or non-legal referee could be allowed to act in a way that would be improper in a judge. Fifty years ago a judge (*Oswald* v. *Grey,* 24 *L.Q.B.,* Erle J.) said "It appears in the present case that each of the arbitrators has considered himself the agent of the party who nominated him. This is a notion which ought strongly to be repudiated, and it is wrong for an arbitrator so nominated to consider himself appointed to take care of the interests of one party only, and not of the others as well."

He would only add that this was the view still taken by the law, but it was not as a rule understood by arbitrators, still less by those who nominated them, and in cases where no evidence was called and everything depended on the individual conclusions of the surveyors who advised the parties it was difficult to say how such a rule could ever be satisfactorily applied.

He saw no reason from a legal point of view why

the parties should not be represented before the three surveyors by solicitors or counsel. The case he had already cited showed that they were arbitrators—that is to say, a judicial tribunal—and the words of the Act of 1855 under which that case was decided were reproduced in the present Act. From a practical point of view he should think that the presence of advocates would often be highly inconvenient, as it was not generally, if ever, a question of conflicting evidence which the arbitrators had to decide, and the intention of the Act seemed to be that the surveyors should simply decide in consultation the questions which arose; but when the parties wished to go to the expense of being represented by professional advocates, there was probably something of sufficient importance at stake for the surveyors to hear argument upon it.

Mr. J. Douglass Mathews (Fellow) said it was somewhat startling, after only four years' working of the Act, that so many questions should arise as had been instanced in the Paper. He thought Mr. Blashill's illustration a good one, viz.: that there had been too many nurses and too many cooks engaged in the development of the infant Bill into the mature Act, and on that account a measure which was supposed to be so simple that he who ran might read, had in many parts of it considerable obscurities and contradictions which rendered it a very difficult Act to carry out.

He did not know what probability there was of any amending Act being brought forward, although he believed such a thing was talked of, but whenever the question of amendment was seriously considered, such a Paper as this would be of considerable importance

with a view to making the Act simpler and more workable.

The suggestion made by Mr. Blashill that there was too little of the surveyor and too much of the lawyer in the Act was likewise well worth consideration.

Party-wall questions were generally difficult to deal with, though simple in their nature, and the illustration which Mr. Blashill had given represented exactly what a party-wall should be. Many persons had an idea that because a wall was partly on their ground, half of it was theirs and that it was not a partnership affair, as a party-wall really is.

Not the least of the difficulties was the giving notice not only to an owner, but to each owner of the party-wall. That particularly arose where the buildings were occupied as offices, and in different ownerships. The surveyor to the building owner might take much trouble in trying to find out every one having an interest in the property, and each tenant holding, other than an annual tenant. Each one of those parties was an adjoining owner, and unless they all agreed every tenant must be a party to an award, and there must be as many awards as there were parties concerned. He had cases in which the owners had agreed to appoint one surveyor, and that surveyor acted for all of them. There might be half-a-dozen persons interested in a party-wall of little importance, and delay, expense, and difficulty was incurred by having a number of separate representatives.

It was not easy to suggest who should be recognised as the owner, or a representative owner, for each person had probably a special interest. It would be well if some other plan could be devised, but he was bound to say he was unable to suggest a remedy.

He thought that party-wall notices should be as comprehensive as possible, though not stupidly so; for instance, the building owner intended to make a greater use of the party-wall than he had before done; or his new building might be higher and require a greater thickness of wall than the old, and his wish would probably be to retain the wall and repair it and thicken it, if necessary, for the purposes of his new building. He gave notice accordingly; but he (the speaker) thought he should also give notice that he was not only going to repair but to pull down and rebuild the wall if it should be found necessary to do so.

In nine cases out of ten party-wall notices were given before even the wall was uncovered and before the building owner himself knew what he had to do.

There might be no immediate intention on the part of the building owner to pull down a wall, but possibly when it was uncovered and examined it might be necessary to pull it down or alter it in some way. Simply to enumerate the whole of the matters mentioned in the sections of the Act, giving the building owner no clue of what was intended was, he thought, wrong. He had known of cases in which everything was embraced in the words "incidental or necessary" which were supposed to cover everything in the notice or out of the notice, but he did not think that was ever intended by the Act. The reason for those words was, that many things connected with the particular works enumerated, could not be specified in detail, although they might be necessary to complete the work.

Then the question was raised whether it was desirable to put in the notice the particular section of the Act to which it applied. He thought not. One portion of

the Act dealt with party-walls, and that was sufficient for all purposes, and one section might not cover all it was necessary to do.

With reference to the third surveyor it had always seemed to him that the tribunal dealing with party-walls was about as good and simple a one as could well be. He strongly advocated the desirability of the retention of the third surveyor, whatever he might be called, umpire or anything else. When the two surveyors could not agree, the matter was put before the third surveyor, who, after consultation with them would decide and prepare his award and send it to both parties for them to agree or disagree as the case might be. He generally found there was not much difficulty when the matter was looked at in a fair way by both parties, and if necessary a second conference was held. His experience was, that one and very often both agreed with the third surveyor in his award, and thus things went on easily, and antagonism was avoided between the parties.

But supposing neither of the two surveyors agreed with the third surveyor, the chances would seem to be that the third surveyor might be wrong. He was not infallible, but if he were appointed as arbitrator his award would be binding, and he hoped the wording of the Act would remain as it was.

A previous speaker had raised the question as to solicitors and counsel being present before the three surveyors. It appeared to him that all matters were left in the hands of two surveyors, with a third surveyor; but if the several points were to be argued before them legally it was making an arbitration of it, and he thought the simplicity and efficiency of the tribunal would be to a great extent lost if questions of law were to be argued at every turn.

One point he should like to mention was as to the amount of the stamp necessary for an award. At present, he understood, no award was legally safe unless it bore a 35*s.* stamp. That was exceedingly hard in many cases when the award was for a small amount, and it seemed a singular thing that it should be necessary to adopt the maximum sum. He knew it was suggested that the award might be limited to so much —"not to exceed £300 or £500"—as the case might be. But it was impossible to foresee what might arise. Supposing anything went wrong, and that, for instance, the house fell down and there was loss of life, what might at first appear to be a very simple thing might turn out a very considerable one. He had been in correspondence with the Comptroller of Taxes on the subject, and he informed him that this 35*s.* was the only legal stamp.

Mr. Henry Lovegrove (Fellow) said with reference to the Section of the Act dealing with the rebuilding of party fence walls, it seemed rather absurd that if a building owner who pulled down a party fence wall and on the site thereof built a wall this must be an external wall. How could it be in any sense an external wall under those conditions? He happened to know a case in which a building owner pulled down a party fence wall and built a three-storey building, in the two upper stories of which he put windows. That, of course, led to trouble between the different owners, and eventually the adjoining owners put up a large screen to obscure the windows. This the County Council promptly required him to take down again.

Referring to Section 93, the last sub-section as to

pulling down and building such party and fence walls seemed to him to be also rather absurd.

Something had been said about the payment of fees in party-wall matters. He knew a case in which the third surveyor went through the matter, and the award was made, but the building owner decided not to touch the party-wall but to build another wall, and he believed the award had never yet been taken up.

It was, of course, extremely necessary to have legal assistance in many matters, but he agreed with Mr. Douglass Mathews that party-wall questions were better left mainly to surveyors. He knew a case in which the building owner and the adjoining owner ignored lawyers altogether and themselves drew up a long agreement. Trouble arose, and the matter came before the Court. The judge would have nothing to do with it, as he pointed out that the parties had gone outside the Act, and that if the matter had been proceeded with within the four corners of the Act that elaborate agreement need not have been drawn up.

The definition of party-walls seemed to be somewhat vague. There was the case of *Williams* v. *Bull* on the subject, and many were of opinion that although a wall might cease to be a party-wall beyond a certain height, it was doubtful whether one could put windows in the higher building.

He had always understood that a party-wall ceased to be such 15 inches above the lower building. He did not know of any case where windows were put in the upper part. Mr. Woodward probably referred to a question arising in Victoria Street, not of adjoining owners, but of a separate building.

Mr. Howard Chatfeild Clarke (Fellow) said

that we thought ourselves to-day very quick and up to date in dealing with party-wall questions, but he had lately in hunting up the annals of an old City Hall came across a minute made in 1667 after the great fire of London in which the Court of that Company, ordered: " that their carpenter was to take a note of all the Com- " pany's houses lately burnt by the fire and where they " were situated, that he might look to the foundations of " them and see that the Company were not wronged by " the building of walls on such foundations as party- " walls, where the same belonged only to the Company." So that even though at the end of this century we were active in taking care of our rights, two centuries ago people were alive to the point, that owners were not to acquire rights in external walls where there were no rights of user.

The difficulty which Mr. Douglass Mathews put so clearly as to service of notices, was one familiar to all surveyors in practice, but he thought that the clear decision in the case of *Fillingham* v. *Wood*, which in his opinion was a good deal amplified by the definition (No. 32) in the present Act where the word " occupiers " was used, settled the point, and as a matter of practice it was usual to serve every one who had over a year's holding in premises. It seemed reasonable indeed that everyone whose holding depended for its integrity on a party-wall ought to know what was going to happen to that wall.

The suggestion of Mr. Blashill that antagonistic feeling in party-wall questions should be reduced to a minimum, seemed to him to be most pertinent. The wall belonged to the two owners jointly, and there was no particular reasons why they should not agree to lay

their heads together and arrange what ought to be done with it.

With regard to Mr. Blashill's question—the old difficult question—as to how far a user of a small enclosure on one side of an external wall makes the wall a party-wall, he presumed that after a period of years the user did give a right under the present Act, by giving notice and by payment, to make it a party-wall. It was a practical point, and if the user had existed for more than 20 years there would be great difficulty in overcoming it.

The question of a general notice was a very important matter in the City of London, and he thought with Mr. Douglass Mathews that there was a strong objection to such notices. He never used them himself, but he had received one last week with the whole printed form filled in. The case of *Hobbs* v. *Grover* dealt with the matter by asking the court whether it was legal notice. The words of the Act seemed to state that the nature of the work was to be clearly stated, and sections from 88 to 95 dealt with this point. One point arose in Section 91, Sub-section 1, which dealt with the question of the award of the surveyors who were to "settle "any matter from time to time during the continu-"ance of any work to which the notice relates." Did that mean that having made one award it was possible, later on in the job when further difficulties had arisen, to set to work and make another? Personally, it did not seem to him that the Act intended that. He thought the Act said that "an award" should be made, but did not mention "award or awards," and he thought that if anything further were read into that section, great difficulties would arise.

With regard to the question of the third surveyor,

he had never looked upon him as an umpire, and he agreed with Mr. Douglass Mathews that he had much better not be so regarded. It was a great help when a difficulty arose between a building owner and an adjoining owner, to be able to have it calmly discussed by each side before a third professional man, and as a rule, unless there was any great feeling or antagonism in the matter, there was very little difficulty in all three surveyors agreeing to an award, and such an award was much stronger and more satisfactory for all parties when it was so agreed to.

With regard to the stamps, he understood that, as Mr. Douglass Mathews put it, if one could limit the works to, say, £50 or £100 in the award, there would be no difficulty in deciding the stamps which it was necessary to have, but if the amount could not be so limited, it would be necessary, in order to be on the safe side, to expend £2 on stamps—35*s.* on the original, and 5*s.* on the duplicate.

Mr. E. W. Hudson (Fellow) said that one of the great advantages of such a Paper as Mr. Pilditch's was that it would enable members, in dealing with decisions under the new Act reported from time to time in the *Professional Notes*, to codify and compare them, and so advise to the benefit of their clients and the avoidance of litigation. It seemed to him that many of the recent cases of difficulty and dispute had been over questions of notices and how these should be given, on which point considerable light had been shed during the present discussion. The case of *Hobbs* v. *Grover* which had been referred to, showed that it was necessary to have a specific wording of the notice, setting forth such description as to enable an adjoining owner to form an idea of what it was intended to do and to decide what counter

notice, if any, would be necessary to protect his interests.

No exception could be taken to the decision in that case itself, which he regarded as a very fair one. The notice given was, he believed, verbatim from Section 88 of the Act, and comprised almost everything that was possible to be done to a wall, and yet it was held to be vague and indefinite, for the reason that it did not let the adjoining owner know that the wall was to be raised and to what extent it was to be raised; and on this ground Mr. Justice Channell very properly allowed the notice to be amended. Drawings submitted with the notice would have obviated this.

There is another point which had been brought out since the Act was passed, and which was an important one in regard to the notice, and that was that it was not necessary that the adjoining owner should actually possess a lease. It was established by the decision in the case of *List* v. *Tharp*,* that if he had his building agreement only, it put him in the position of a man actually holding a lease.

A difficulty had been mentioned for which he was not aware of any remedy. If one of the parties allowed the notice to lapse and did not go on with the case, there were still outstanding fees, and he did not think it was ever established how they were to be recovered. The matter was still in abeyance and the fees were not paid. That seemed to be a very unsatisfactory state of things, from the surveyor's point of view at any rate. The great uncertainty of the law in this country was one of the difficulties of our jurisprudence and made one long for the simplicity of the Code Napoleon or the law obtaining in the United States, where such matters were settled without difficulty, and even the old records which

* *Professional Notes*, vol viii. p. 327.

had been mentioned by a previous speaker made one envy the simplicity of the old law, though of course it could not deal with all the cases which now arose.

Then as to the discrepancy between the Acts in force in the provinces, dealing with party-walls, and the Metropolitan Building Act. In the country, Common Law ran side by side with the Local Acts dealing with such matters, whereas, in the metropolis, he understood that Common Law had no place unless definitely brought into the Act. He should be glad to be put right on that point if he were in error.

As to those discrepancies, the members probably knew that the Royal Institute of British Architects, in pursuance of a resolution passed last June, had lately waited on the Parliamentary Secretary of the Local Government Board with a view to getting, among other matters, party-wall questions in the provinces treated somewhat more in accordance with the metropolitan regulations. But, as might be supposed, it was impossible to get the promise of legislation at present on such a wide subject. But if any recommendations without legislation could be made by experts whom the Local Government Board were consulting they would do their best to meet their views in the matter. (*Journal R. I. B. A.*, vol. vii. p. 18.)

Then with regard to that portion of a wall which was above the assumed parapet line of a lower building, there seemed to him to be a discrepancy in judicial decisions. In the Bristol case of *Weston* v. *Arnold*, it was held that the upper part ceased to be a party-wall, and that windows might be put in it, as Mr. Woodward said he was able to do under the London Building Act. Against that there was the London case of *Williams* v. *Bull*, also referred to, which was settled prior to the Act of 1894, where it

was held that the raised part was party-wall right up to the top ; in fact that it was all a party-wall and yet, being built at the time of its erection solely for the purpose of the building owner's needs, the adjoining owner was not bound to pay anything for it when he used it, as he did very shortly afterwards for increasing the height of his own premises. According to Mr. Justice Mathew's decision, as the adjoining owner made no requisitions by counter notice at the time of the rebuilding of the higher premises, he was not bound to pay the building owner anything whatever for the original cost of the upper half of the wall though it was on his (the adjoining owner's) land.

If that were law it did not seem to him to be equity. He did not understand why, in that case, the adjoining owner should not contribute to the expense. The Act of 1894, as he understood it, made the whole *length* of it a party-wall ; but did the *full height* also become a party-wall under the Act ?

Supposing it to be decided that payment was due for that upper wall, who would be entitled to receive the money in a case where the building owner sold the taller property he had raised before the adjoining owner used the other portion, and by so using was held liable to pay for half the thickness on his own curtilage ; to whom was the money to be paid ? It seemed fair that the vendor should still have a claim for the work which was outside the assigned curtilage whenever it was utilised. If that were recognised by agreement between the parties or by award the claim might hold good at any time to executors and assigns. If the decision in *Williams* v. *Bull* were maintained by the Courts he presumed the spirit of it must be often set aside in metropolitan settlements in awards by surveyors.

A case affecting party-wall questions in the matter of height was *Davis* v. *Lewis and Marks* (P.N. vol. ix., pp. 428 and 349), in regard to Crosby Hall, which settled several important points. It was a decision by the City Court, which took the place of the County Court within the City area, and it limited the power of surveyors in fixing boundaries and height of party-walls or structures apart from the width of the streets, where oversailing work would be cut into; but over-hanging cornices did not seem to be affected by that decision. There seemed to be doubt in the minds of some practitioners as to the effect of that case and if any member could throw any light on the matter he thought it might be of great advantage.

There was another matter of difficulty that he did not know had ever been set on a proper footing, and that was in regard to the walls abutting on public passages where the lower portion, for one storey in height was an external wall, and the upper portion became a party-wall. That was a case which might be within the knowledge of some of the members, but he did not think that it had ever been clearly established what rights the owner had in regard, for instance, to opening a shop front into that passage, or dealing with that portion which was not a party-wall and that portion which was.

Some reference had been made to party-fence walls. He did not suppose that they might be taken as remaining such for more than six feet high when pulled down and made use of for party-walls, but there was otherwise a great deal of vagueness with regard to them, and it seemed to him that building agreements and leases should specify explicitly where the boundary was. He thought that was a point on which surveyors might have

a word to say to solicitors. In old property it was very difficult to tell it from the dimensions on the deeds. They could not be depended on to a few inches. Even in the case of new estates, where solicitors had not specified where the boundary was, a difficulty very often arose where the adjoining land belonged to the same freeholder, and was let out for building; and when years had elapsed it seemed to him the only evidence was that of the surveyor, if he were living, to show that the custom of the estate at the time of the first building was to make the centre of the wall the boundary. He had known cases where 16 or 17 years elapsed before the adjoining land was dealt with, and when it came to a question of ownership the persons who had bought the property considered that the whole of the boundary wall passed to them with the assignment of the lease, and claimed payment for half of it from the new comer, as did also the vendors. It seemed to him that was not right. It ought to be expressed in the body of the lease where the boundary was, so as to save all difficulty and expense in recovery, perhaps greater than the value of the wall itself.

Mr. PILDITCH, in reply, said it was obvious that it was impossible for him at so late an hour to attempt to deal with a tithe of the important points referred to in the discussion. He might possibly have an opportunity, after considering them, of arranging for a further contribution on the subject in the *Professional Notes.*

But he would, if he were allowed to do so, occupy a

few minutes in dealing, on the spur of the moment, with one or two points which had been raised. In the first place he was rather astonished to hear Mr. Chatfeild Clarke say that he thought that under Section 91, where there was an award not completed, it was not possible after the award had been given, though the work was being carried on, for another award to be made by the two out of three surveyors, or for them to settle the points subsequently arising.

He would point to the actual words of Section 91, which specifically stated that the surveyors, or any two of them, should from time to time settle matters during the continuance of the work, which seemed to clearly imply that it was possible for the surveyors to make awards subsequent to the original award.

Then Mr. Douglass Mathews seemed to be rather concerned with the difficulty which the building owner's surveyor must experience in defining what he wished to do to a party-wall and the consequent impossibility of serving really full and explanatory notices. He agreed that if architects and surveyors wished to delay the matter in hand, and perhaps in some cases to steal a little march on the adjoining owner, it might be difficult to define clearly what it was proposed to do. But in the majority of cases, if the architect or surveyor acting for the building owner would spend sufficient time to go into the question of the surrounding boundaries and walls of his property, he would find that in nine cases out of ten —that was his experience—it was possible to prepare explanatory plans or sketches of what he wished to do, so that they might be attached to the notice in accordance with the decision of the Courts in the case of

Hobbs v. *Grover.* Whether he was able or not he must do his best to do so, he thought, under the decision in that case.

A few very useful suggestions on the law were made by Mr. Newbolt, but there was one point on which he would like to ask a question. Mr. Newbolt seemed to think that the three surveyors were specific and distinct arbitrators in a legal sense, and he quoted a case which implied that they were arbitrators and in no sense acting *ex parte,* and he thought he rather wished to apply that to the proceedings under the party-wall section of this Act, and to suggest that both surveyors as well as the third surveyor were actually in the position of legal arbitrators. He did not see how that could be. Under the Act, each surveyor was appointed separately to look after one party's interests. The building owner's surveyor was appointed to look after the erection of the building and was in the position of a professional man acting for a client. It was exactly the same in the case of a surveyor appointed for the adjoining owner, who was appointed to protect the interests of his client, as against the building owner. What had happened by the time a third surveyor had been called in to alter the relative position of those two surveyors, and to make them absolutely legal functionaries, as it were, and not professional men acting on behalf of their clients? He thought it must be recognised that the two surveyors, when they called in the third surveyor, must still have a natural bias in favour of the client by whom they had been instructed, and whose interests they were still and must be still protecting.

He did not know whether Mr. Newbolt would have

an opportunity of giving an answer to that point. If so, he should be glad to hear it.

Personally, he felt obliged to Mr. Newbolt for the answer to the question he raised as to the meaning of the words "such third surveyor" under Section 91 in respect of which he confirmed his own view; and also for his remarks with regard to his (the speaker's) comments on the relation of Sections 10 and 12. While not quite agreeing with what he (the speaker) had said he threw a good deal of light on the subject, and pointed out an additional reason why it would be improper to act on Section 12 in certain cases where Section 10 actually applied.

Then his friend, Mr. Woodward, told how he had made an application to a Secretary of State, which had been most successful. Might he ask Mr. Woodward to tell him which Secretary of State he applied to?

Mr. WOODWARD: The Secretary of State for the Home Department.

Mr. PILDITCH (continuing) said he was obliged, and he was afraid he must have made his application to the wrong Secretary of State. He should know in future who to apply to. Then Mr. Woodward made a remark as to the limit of time for the exercise of right, and said he did not see what good existed in reduction to two months limit. He said he got an award entered into, and at the end of two months he was not allowed to proceed under it, but if he understood rightly the award, though

in black and white, was not signed. He did not think there was in that case much cause to complain of the Act. If he could not get his award signed before the two months he could not expect to act upon it. The point seemed to him to be that if he could not get the other surveyor to sign the award, the thing to do was to go to the third surveyor, and then, if he could not get the third surveyor in motion, there was always the Home Secretary.

There was one other point that Mr. Woodward mentioned, viz. with regard to a case respecting a piece of wall built upon a party-wall abutting on the adjoining building, which he stated became an external wall. The two cases which seemed to him to throw some light on the point which Mr. Woodward had quoted but to which he had not given them a reference, were *Williams* v. *Bull*, where it was held that the wall itself did stand partly on the land of two adjoining owners, and a certain decision in the well-known Crosby Hall case, just quoted by Mr. Hudson, where it was evidently held by the judge that the wall in question stood entirely on the land of one of the owners, and where the remarkable decision was given that in a case of that kind, the portion of the wall, up to the height of the adjoining owner's lower building, was a party-wall, and could be taken down and re-built, but that the portion which existed above the adjoining owner's property was not a party-wall, and could not be taken down and dealt with. Two things consequently followed—first, the building owner would have, in dealing with the wall, to shore it completely, and so build up under it; and, secondly, he could not raise upon it.

Mr. WOODWARD: The case I refer to is *Drury* v. *The Army and Navy Stores.**

Mr. PILDITCH (continuing) said he thought the point Mr. Woodward referred to was only incidental in that case.

He could hardly reconcile Mr. Woodward's remarks as to serving notices on owners. He first quoted counsel's opinion which appeared to be rather against his (the speaker's) remarks in the Paper and which was to the effect that only one notice was necessary; but he did not tell them the grounds upon which counsel arrived at that opinion.

Mr. WOODWARD: Counsel did not tell me the grounds.

Mr. PILDITCH replied that perhaps that accounted for the fact that Mr. Woodward did not agree with counsel, as he was careful to say later on when dealing with the definition section that his opinion was opposite to that of counsel. The matter was important and he would have been glad if some legal Associate could have given them his views.

As he had said a moment ago, he must not trespass longer on the time of the meeting in dealing with the many points raised, but he would conclude by thanking the members for the very kind attention which they had given to his Paper, and which had quite repaid him for the trouble he had taken in preparing it.

The PRESIDENT, in summing up the discussion, said he thought two very interesting evenings had been spent in discussing a subject which was very near to all surveyors.

* *Professional Notes*, vol. viii., p. 99.

The history of the Building Act was certainly one in which The Institution, as many present knew, had taken great interest, and he thought that Mr. Blashill's description showed what proceedings had been taken to obtain the present Act, and the causes of differences which were to be found between the present and the preceding Act.

Another very important thing had been mentioned, namely, the distinction between party-walls in London under the Metropolitan Building Act and party-walls in the country. In London, practising surveyors considered they had great advantages, because in the ownership of a party-wall by two parties each of them had the joint ownership of the whole wall so far as they jointly occupied it. In the country the ownership was, unfortunately, the ownership of a moiety of a party-wall in many cases. He did not think that unless the country people could obtain a very clear insight into the advantages of our Metropolitan Building Act, they were likely to give up their own arrangement or that the owner of an absolute moiety would be content with a joint ownership of the whole. An owner of a specific portion would always feel that he was giving something up in making the change.

He was glad to hear that the Royal Institute of British Architects was moving in that direction. His own impression was that it would be to the advantage of all parties that there should be a joint ownership of the whole party-wall.

With regard to the position of the one, two, or three surveyors under the London Building Act in making an award and in settling what was to be done, he did not think that it was best that they should be mere arbi-

trators. He thought that their position must be that of professional men engaged on behalf of the two sides of the wall. There must be different opinions and important questions as to what was best for each party to be done. The building owner wished to obtain for himself as good a house as he could with as little expense as possible, but above all things he desired to obtain a good house. The adjoining owner's object was to allow the rights of the building owner with as little interference to himself as possible, and it seemed to be necessary, in order to obtain a fair statement of what were the rights of the two sides of the party-wall, that they should be taken up by advocates; and when advocacy had stated all that could be said on both sides, it was desirable that there should be a third person to come in, and that person was to a great extent an umpire, but he was only selected from those who were accustomed to take a side in regard to party-wall cases, and therefore was not a mere umpire, but a man experienced in obtaining on the one side or the other what could be reasonably obtained. Hitherto, the action of the two—the necessary agreement of two out of the three—had secured a practical view of the subject in dispute. He much doubted, if their position were to be changed to that of mere umpires, and the third surveyor who was called in were to be given the power of dividing between the other two, without pointing out what was absolutely just between them, that it would be of any great advantage. He trusted that the present arrangement of the three surveyors necessarily agreeing would continue.

He should personally be very glad if, in the Building Act, there was some power given to the Tribunal of Appeal to work up the various questions which arose,

and to propose from 10 years to 10 years, or at whatever fixed periods might be convenient, the obtaining of such alteration and amendment of the Act as practice should show to be necessary.

The Meeting then adjourned.

SELBORNE

Hill Hanger
Oakhanger Stre
Priory Farm
Selborne Priory (Site of)
Rhode Copse
Rhode Farm
Honey Lane
Latchford Copse
Slab House
Slab
Blackland Plantation
Surface of Water 263·9 11th September 1895
Oakhanger Ponds (Fish Ponds)
Honeylane Brick Yard
Boat House
Albury Farm
Oakwood Farm
Pondend Farm
Shrubs Copse
Ironpaddock Copse
Temple Hanger
Hopkiln
Reservoir
Temple Farm
Manor House (Site of)
Temple Wood
Sotherington Farm
Lower Temple
New Barn
Smoky House
Sotherington Lane
Combrook Hanger
Island Copse
Bradshott Wood
Spring
Bushy Row
Bushy Copse
Snap Wood
Blacknoor Wood
Burhunt Hanger
Homefield Hanger
Bradshott Hall
Yard Farm
Bradshott Brick Yard
Lower Hanger
Brockbridge Farm
Brock Bridge
Union By.
Lodge
Hopkilns
Spring Garden
Le Court
Lawrence Copse
Cott's Shaw
Great Wood
Little Wood
Hazel Copse
Sheepcrafts Copse
Benhams Farm
Knightsfield Copse
Firsplat Copse
Lowergroves Copse
Forest Side Farm
Bricklayers' Arms (P.H.)
Dead Farm
Kingsholt
Lodge
The Withy
Blacknoor House
Matthew Church
School
Vicarage
Blackmoor
Upper Eveley Farm
Sand Pit
Eveley

I. II. III. IV. V. VI. VII. VIII. IX. X. XI. XII.

REFERENCES
COPSEWOODS
Annual Falls for
1899 – 1900
1900 – 1901
1901 – 1902
1902 – 1903
1903 – 1904
1904 – 1905
1905 – 1906
1906 – 1907
1907 – 1908
1908 – 1909
PLANTATIONS

Scale of 10 5 0 10 20 30 40 Chains

C F KELL & S

Paper 252.
No. 406.

FOREST MANAGEMENT, WITH SUGGESTIONS FOR THE ECONOMIC TREATMENT OF WOODLANDS IN THE BRITISH ISLES.

By JOHN NISBET, D.Œc., Colonial Fellow.

Read at the Ordinary General Meeting of The Surveyors' Institution, *on Monday, January 15th,* 1900.

Thomas Miller Rickman (President) in the Chair.

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t various times in past history Britain has ex-
ced more or less acutely the want of timber for
constructive purposes. This was notably the
ing the great period of naval warfare about a
ago; but improvements in communication by
d water have since then enabled the British
obtain from foreign sources, and from our great
and dependencies, the vast quantities of timber
nually required. Those, however, who give
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FOREST MANAGEMENT, WITH SUGGESTIONS FOR THE ECONOMIC TREATMENT OF WOODLANDS IN THE BRITISH ISLES.

By JOHN NISBET, D.ŒC., Colonial Fellow.

Read at the Ordinary General Meeting of The Surveyors' Institution, *on Monday, January 15th*, 1900.

Thomas Miller Rickman (President) in the Chair.

At various times in past history Britain has experienced more or less acutely the want of timber for special constructive purposes. This was notably the case during the great period of naval warfare about a century ago; but improvements in communication by land and water have since then enabled the British Isles to obtain from foreign sources, and from our great colonies and dependencies, the vast quantities of timber now annually required. Those, however, who give attention to statistics concerning the existing market for timber, the sources of supply, the annual increment in growth, and the present excessive demands for the supply of actual requirements, cannot fail to become impressed with the serious position into which this country has actually already drifted with regard to satisfying her necessitous demands for timber in the very near future.

The requirements in timber of the more commercial

portions of the world, Europe and North America, have now become excessive, though not abnormal. They are strictly normal as a result of the vast industrial energy displayed and of the adaptation of wood both to general constructive industries and to special new branches, such as use wood-pulp and cellulose. But they are excessive in so far that, in many countries, the sources of supply are now failing to yield in annual increase a volume of timber equal to what is being harvested. In other words, to utilise existing markets the forest capital of timber-producing countries is being encroached on in a manner that must soon lead to a much decreased out-turn.

Apart from imported hardwoods, such as Teak timber from India for shipbuilding, Jarrah from Australia for wood-pavement, and the like, the great bulk of the timber used for constructive purposes in Britain is coniferous. It consists mainly of pines and firs, which are annually imported to the extent of £16,000,000 a year, out of total imports of forest produce varying from 20 to 22½ millions of pounds sterling per annum.

In considering the sources from which these existing requirements are supplied, the questions that naturally suggest themselves are: (1) Whence are these supplies at present drawn? and (2) Can these sources of supply be relied on for the future? These are two very important questions.

The great sources of supply of coniferous timber to Britain are, and for many years have been, the countries forming the seaboard of the Baltic and the north-eastern corner of the North American continent. These must form in the future, as they have been in the past and now are, the great natural storehouses whence the supply of coniferous timber must be obtained, unless and

until extensive new woodlands that may be formed in the British Isles can reach marketable dimensions. Unfortunately, however, these great sources of supply are now being operated upon by economic conditions differing from those which have hitherto obtained. In past times there was a competition of various countries to secure the great British market for their surplus supplies of timber. But now other countries are competing with Britain for possession of the timber required in ever-increasing annual quantities. Hence, in place of vast quantities of timber having to find a remunerative market, there is competition, which must gradually become keener and keener, among various countries to obtain for their own industrial requirements the surplus timber which other more thinly populated, but thickly wooded, countries can place upon the market for export.

Our two great competitors in this matter, as in other industrial and commercial affairs, are notably Germany and the United States of America. Both France and Austria require more timber than even their own large forests are at present supplying them with. But Germany is our great competitor for the timber exported from Russia, Sweden, and Norway; while the United States, unable to supply their vast demands from their still extensive forests, must look more and more to the Canadian forests to eke out the diminishing supplies of home-grown timber and to supply all the fresh demands incessantly arising.

The pressure which these economic forces are bound to exert in pushing up the price of coniferous timber has hardly yet been felt; but it is a factor which will make itself felt more and more, until steps of some sort are taken by Great Britain to secure adequate supplies of

British timber, colonial or home-grown. For Britain is menaced by a coming scarcity of timber; and anything like the low rates which have previously obtained, and are now still obtaining, can hardly prevail for many years longer.

That this rather gloomy forecast may not seem purely visionary, the following data may be considered:

The New York State, early in 1899, pointed out once more, as had often previously been done, that at the present rate of timber consumption the remaining forest lands of the United States cannot continue to meet the enormous demands made on them. So clearly was this the case that the Albany Commissioners called upon the New York State for a prompt rectification of the Forest Laws to meet the serious menace to economic conditions as regards their own State. They emphasised their demand by recording the fact that during 1898 no less than 451 millions of cubic feet of timber were cut in the Adirondacks, whereby 105,000 acres of forest land were denuded, while no provision was made for further growth.

Previous to this, when the New York State College of Forestry at Cornell University was founded, in 1898, it was stated that:

The annual consumption of wood materials in the United States is estimated at over 2,000 millions of cubic feet, valued, when shaped for use in the arts, at not less than 1,000 million dollars, which so far has been supplied from the virgin forest resources of the country. By the rough exploitation of our forest resources, without attention to reproduction, and by reckless waste through fires and otherwise, the virgin supplies have been reduced to a condition when attention to the future has become imperative, and rational forest management and application of the business principles of forestry have become a necessity.

And again:

In Canada* the quantity of pine cut annually is said to be 1,000 million board feet, and the supply at this rate will last 40 years; while the total value of the forest produce now being annually cut for logs, lumber, wood-

* Interesting details as regards the forest industry of Canada will be found in an article on "Canadian Trade with Great Britain," in the *Contemporary Review* for January, 1900 (pp. 86, 87).

pulp, paper, &c., is estimated at £16,000,000. In spite of the forest regulations, the growth of new wood is said not to be equal to the amount cut. The total exports of wood and lumber from the Dominion amount to over £7,000,000 annually, to which Quebec and Ontario contribute nearly two-thirds. Almost the whole of this goes to the United States and Great Britain in nearly equal quantities, the advantage, however, being on the side of the former. In a few years the United States will be to a great extent dependent on Canada for their main supplies of wood-pulp.

Canada, with 1¼ million square miles or 37 per cent. of its total area under forest, may be considered the greatest producer of coniferous timber in the world. If its splendid forest wealth were being properly conserved and economically treated, — which is unfortunately not yet the case, although public opinion in the Dominion is gradually becoming educated to the importance of this,—it could be made to yield *in perpetuo* large supplies of timber both to Britain and to the United States. Even supposing the whole of the Baltic supplies of timber to be attracted to Continental markets in place of coming for the most part to Britain, the mother country could still satisfy all her requirements as to timber for building from the great Canadian colony if the Imperial preferential treatment, about which so much is intermittently heard from time to time, were duly cultivated so as to yield its promising economic harvest.

The position of the British timber-market is therefore very much the same as that relating to the supply of food-stuffs. We do not produce of home-growth more than a mere fraction of the timber consumed in works of construction. The stocks held are not large, and building operations would soon be at a complete standstill if free communication on our ocean highways were interrupted for any length of time. Even allowing for the greatly enhanced use of metal and of other sub-

stitutes for constructive purposes, timber is a necessity. Actual circumstances being carefully considered without prejudice, it seems clear (1) that under existing circumstances adequate supplies of timber can only be obtained from foreign or colonial sources so long as Britain retains command of the seas, and (2) that, owing to the shrinkage in the world's coniferous forests, combined with the growing demands and the enhanced competition of all the great commercial countries (and particularly of Germany and the United States) for increased supplies, prices for this kind of timber must soon rise and will go on steadily increasing in the very near future.

I have purposely dwelt on these matters at some length in order to try and prove to you, and through you to the owners of the landed estates under your management, that the prices for timber which have hitherto obtained seem certain to become gradually and permanently enhanced within the next few years. Unless and until this statement be approved, no great general improvement in forest management can be expected in Britain. Spasmodic attention may be called to the subject from time to time, and Parliamentary Committees may even report on Forestry and on the working of the Department of Woods and Forests, as during 1886 to 1889; but it will not be until landowners and their estate agents become convinced of financial advantages being obtainable, that any real progress can be expected. When once this recognition is effected, the progress in improvement should be rapid. If, however, you feel able to accept this forecast as a reasonable and probable one, then two practical questions immediately suggest themselves, namely: (1) Are the conditions at present obtaining on large landed estates in Britain such as will enable their owners to reap the

financial advantages that the anticipated rise in prices would indicate as available, and (2) If not, what can be done to improve their economic condition?

With regard to the first question, the great majority of the wooded estates are managed upon principles in which economic considerations as to the production of timber are subordinated to other matters, and especially to sport. Most of the crops are badly stocked. If artificial, they have usually been planted at too wide distances; while both natural and artificial woods have generally been thinned to an extent permitting, and even encouraging, the growth of branches at the expense of length and cleanness of the stem. Crooked hardwoods and flowered timber for furniture can easily be grown in the hedgerows and in park lands and pastures; but long, clean stems, with a good, straight fibre free from branch-knots, can only be grown in the close canopy of much denser woods than are to be found on most British estates. Mistakes, too, have often been made in the selection of trees when forming new plantations, so that, on the whole, it can hardly be denied that the monetary capital represented by the soil and the growing stock of timber are being managed, except on very few estates, in such a manner as not to give the best financial returns to the owner.

Then, too, large numbers of timber trees in copse-woods are rendered almost useless by neglect. Not being felled when mature, they gradually deteriorate in value. Thus they become unprofitable in themselves, and occupy soil which should be bearing a vigorous crop of younger wood.

These very brief indications hardly require to be elaborated in order to prove that the woodlands on most of the large estates throughout Britain are not in a con-

crete condition to utilise to the full the improvements that may be anticipated in the home timber-market.

In this matter the State seems, perhaps, most to blame for neglecting the national interests. The British Government have not as yet—like nearly every other civilised Government, including that of their own dependency, India—established any national school of Forestry. Nor have they done what might be reasonably expected of them to provide suitable instruction in economic Forestry at the great universities and technical colleges, where most of those receive part of their education who, later on, fulfil duties in connection with the ownership and the management of landed estates. And Government is not likely to remedy existing shortcomings save under popular pressure. But the landowners themselves are hardly free from the charge of neglecting their own interests; for with them it mainly rests to recognise certain strong disadvantages under which the growth of timber in Britain labours, and to press various reforms upon the attention of the House of Commons, such as State instruction in Forestry, the economic utilisation of the Crown forest lands, and the freedom of lands devoted to the growth of timber crops from some of the virtual restrictions now placed upon them. Certainly the State is little likely to move in such matters unless pressure from without is brought to bear on Government. In this direction the members of The Surveyors' Institution hold a position in which, if convinced of the desirability of effecting reforms in British Forestry, they cannot but have great influence with the landed proprietors. Hence it rests to a great extent with the estate agents if the present rather haphazard arboricultural method is to continue indefinitely, or if it can now be made to give place to the sylvicultural and economic treatment.

And now comes the great practical question, What can be done to improve the economic condition of British woodlands ?

It was abundantly shown in the Reports of the Parliamentary Committee on Forestry in 1886 and 1887 that adequate instruction was not available in Britain, either theoretically or practically, for the training of land agents in this branch of rural economy. And since then but little real progress of a practical sort has been made. The Government of India have formed two professorships of Forestry at their Engineering College at Coopers Hill in Surrey, but the lads trained there for the Indian Forest Service have still to go to the Continent for their practical training in sylviculture and forest management. During the last ten years, organised lectures on Forestry have been given at the University of Edinburgh. A chair of Agriculture and Forestry exists at the Durham College of Science, in Newcastle, and gradual improvements are taking place in Forestry instruction at the various Agricultural Colleges throughout England. But, apart from the admirable provisions made by the Government of India to supply their own educational requirements at Coopers Hill, nothing adequate has yet been done in this country, either with or without State aid, to bring within the reach of those who intend making estate agency their profession, a proper training in economic Forestry. Many books dealing with the four main branches of the subject (Sylviculture, Protection, Management, and Utilisation) have appeared within the last decade ; but the art of Forestry can no more be learned without a practical training in forests than a knowledge of the art of Agriculture can be acquired away from the fields.

Now, very few of the men following the profession of

estate agents in Britain have had the necessary opportunities of equipping themselves, theoretically and practically, with the special knowledge requisite for the economic management of forests, or scientific Forestry, as it is often called. This being the case, the time has perhaps now come when there is a fair opening for professional men, trained in Forestry, to dedicate themselves to this branch of rural economy and to practise as specialists, whose services would be available for advising as to the formation of new plantations, and for reporting on forests and drawing up Working Plans recommending improved methods of treatment.

At first mention of this, it might be supposed to mean the advocacy of a small number of professional men striving to come between the landowners and the estate agents as a body. This, however, is not the case; otherwise I should not now be addressing you as a Fellow of your own Institution, and one of yourselves. In medicine, in law, and in other professions there are specialists to whom general practitioners take their cases for special advice; and I do not see why this should not also be quite feasible as to special professional advice with regard to the management of the wooded portions of landed estates in different parts of the British Isles. A commencement has already been made in this direction in different parts of England and Scotland, both by the Department of Woods and Forests and by private landowners; but the movement has not as yet become anything like general with regard to the wooded portions of large estates.

The manner in which a Working Plan may be expected to effect improvements will extend on the one hand to making such recommendations as to the treatment of the existing crops or the formation of fresh crops, as

will lead to the soil being utilised to the fullest extent practicable, and on the other hand to the allocation of the thinnings and falls of timber and of coppice in such a manner that the object in view of the proprietor may be met as fully as is feasible, and that the largest returns capable of being obtained from the given soil and situation may be continuously harvested in the shape of a regular yield sustained annually.

It does not follow that a Working Plan will at once or in the immediate future lead to profitable returns being obtained from woods which have hitherto been unremunerative, or that an increase in the surplus of income over expenditure will be the immediate effect. But experience in all countries where particular attention has been given to Forestry has proved very clearly that it is impossible to obtain continuously the best returns from the capital represented by the soil and the crops of timber, unless their management follows the prescriptions of a well-considered Working Plan.

In place of providing an immediate source of enhanced income, those who prepare Working Plans for woodlands in Britain may frequently find themselves in the unfortunate position of having to recommend outlay for the purpose of stocking blank portions of existing crops, and to temporarily postpone thinnings in order that the various woods may attain the *normal density* of crop without which they are apt to run into branch development at the expense of clean, long, straight stems.

As an Appendix to this Paper will be found an extract from a Working Plan recently drawn up by me for the Right Honourable the Earl of Selborne's woods in Hampshire. Though the wooded area is comparatively small in extent, I have, with his lordship's permission, brought this Working Plan before your particular

notice, because it deals with a condition of affairs such as probably obtains on most of the landed estates throughout Central and Southern England.

To summarise this plan briefly, the Selborne woods consist partly of old copses and partly of coniferous plantations of recent formation. In the copsewoods, the standard trees have not in the past been selected with a view to anything like regularity either as regards age or distribution over the area; while the coppices are not only incompletely stocked in many places, but are also filled with kinds of wood of less value than might be grown on the given soil and situation. For woods of this class the best rotation is usually about 25 to 30 years, *i.e.* about $\frac{1}{30}$th to $\frac{1}{25}$th of the total area (according to productivity) forms the annual fall; but for specific reasons a rotation of only 20 years has here been adopted, so that about $\frac{1}{20}$th of the area is harvested annually. In order, however, to effect as rapidly as possible certain improvements both in the standard trees and in the coppice, a provisional rotation of 10 years is first of all adopted, so that about $\frac{1}{10}$th of the area will be felled during each of the years 1899-1908, and only after that will the normal rotation of 20 years become applicable. With regard to the conifer plantations, the evils of wide planting have not yet been fully remedied. Hence thinning must for some years be restricted to the removal of diseased and suppressed poles, for any forcible extraction of revenue from these plantations at present would only be deliberately interfering with the future market value of a crop grown economically in normal density of canopy.

Where copsewoods exist in Britain, they have the great advantage of supplying sporting requirements; and these latter need not (except as regards rabbits) be inter-

fered with to any very serious extent if rational improvements are made in the treatment of the woods. As for the formation of new plantations, the ravages of ground game are now usually so great that wire netting against rabbits becomes an unavoidable expense. Self-sown seedlings are found to be much less frequently attacked by rabbits than young trees planted out; and the Corsican pine, along with its other excellent qualities well deserving attention, has proved less toothsome to ground game than any other conifer. Hence, where feasible, experimental sowings, particularly of Corsican pine, may perhaps prove considerably cheaper than ordinary plantations, with their inevitable fencing.

In many portions of the wooded areas of Scotland conifers form the ruling kind of crop and extend over large areas. For such woods, of course, treatment as regular high forest with long periods of rotation, prescribed by the best age for felling to meet the demands of local requirements, is self-evident. But a Working Plan will give the necessary technical basis to the various operations of forming, tending, and utilising the crops, without which the best returns cannot be expected. The grievous and costly mistakes often made in the past with larch may be quoted as examples of misfortune arising through want of due consideration and guidance in the formation of new plantations, for initial mistakes of this sort can sometimes never be remedied.

If landowners and estate agents decide that the future prospects of British Forestry are such as to warrant some outlay in the preparation of Working Plans and in the improvement of the wooded portions of estates, then it might probably be the case that large additions would soon be made to the existing area under woodland. At present, of a total area of land and water exceeding 77

million acres in the United Kingdom, over 47 million acres are under crops and grass, leaving nearly 30 millions of acres as roads, town lands, hill pasture, moorland forest, waste land, and woodlands. Now, if there are going to be solid inducements offered by the home timber-market of the near future, it will probably be in the interests of the landed proprietors to bring portions of this vast uncropped tract under forest with economical management. And it would certainly be to the advantage of the country in general if this took place; for the increased labour thus requisite would improve rural conditions. It would help to keep the men on the land and prevent their flocking to the towns; and it would keep money at home which now goes abroad for coniferous timber that might easily be grown in Britain. But, you may ask, are there any inducements offered by Government to the landowner to bring his woods into economic condition, and to extend the woodland area by planting? There are none. Yet, until substantial inducements are offered by Government, landowners can hardly see much advantage in embarking in large investments of this nature, although otherwise all our existing demands for coniferous and ordinary hardwood timber might easily be supplied from forests that could be raised in Great Britain and Ireland. The present three million acres classifiable as woodlands and nurseries might easily be trebled in extent if the landowners could be brought to see their advantage in it; and this increased area would, under economic management, suffice to satisfy all Britain's present requirements in timber.

The apathy and *laissez-faire* attitude adopted by the landowners as a class with regard to Forestry has a very reasonable amount of justification in it. To begin with, most of them have only a life interest in their estates; and owners have so many calls of various sorts made upon

them that they have seldom much money at disposal for investment in timber crops, from which only their sons and grandsons could derive any or all of the benefit. Considering the long periods of time which ordinarily elapse before newly-formed woodlands yield any tangible return from the capital invested in them, and considering the great fall in the value of and the returns from agricultural utilisation of land, Government might reasonably be asked to make advances of money at a low rate of interest (say, the rate yielded by Consols) to landowners desirous of planting portions of their estates to be managed as economic forests. And it would merely be an extension of the same principle if advances were also specially made to enable landowners to have Working Plans drawn up for their existing woodlands and to carry out the recommendations of such Plans framed by specialists, licensed if necessary by the Board of Agriculture.

Again, the rating of woodlands is unfair to landowners In England they are assessed on what is in practice really an assumed value as agricultural land, while in Scotland their yearly value is fixed as the rent at which they might in their natural state be reasonably expected to let from year to year as pasture or grazing lands. Each of these ratings is in its nature unfair; while each must act as a hindrance to the planting of the poorest classes of land, *true forest land*, unsuitable for arable cultivation and not paying as pasture land. But, rating apart, the State demand for annual payment of this tax on land also acts as a deterrent to planting; and it would be more equitable if the cumulative rates, free from any increase at compound interest, were only demanded on account of any timber crop when this reached its maturity and was being cleared for market. When the legislation necessary for such improvements

is in hand, it should not be difficult to make legal safeguards, so as to prevent an heir in possession under an entail in Scotland from cutting the timber during his possession. Even under any circumstances this amendment of the Scottish law seems desirable; but the removal of this danger might, along with State aid, perhaps induce landowners to plant largely in some parts of Scotland.

Relaxation of the existing burdens on woodlands and pecuniary assistance of the above nature to landowners would impose no substantial loss on the Treasury; and might easily be made the means of improving British Forestry, and adding greatly to the economic condition of the country in general by encouraging conifer plantations on poor soil and moorland now barren. It would cost comparatively little, in view of the benefits obtainable, even if the rating were entirely removed from woodlands subjected to the operation of Working Plans duly approved by the Board of Agriculture; for the rating of British woodlands was only imposed when the duty was taken off foreign imports of timber, and thus a double blow was dealt to the home growth of timber. And, finally, the existing system of combined through railway rates by sea and land for foreign produce entrained at a seaport is a matter that deserves parliamentary investigation in the interests of British Forestry as well as of British Agriculture and Commerce generally.

NOTE.—The maps hereto appended, on the scale of six inches to one mile, are in illustration of the Tabular Statements of Fellings given on pages 120-123.

APPENDIX,

Being an Extract from the Working Plan drawn up for the Right Honourable the Earl of Selborne's Woods in Hampshire.

Part II.*—The Working Plan proposed for Future Management.

The proposals of the Working Plan, although partially determined by the various data collected in Part I. are more particularly based on the crop descriptions detailed in the *Field Book* (Appendix B).† A *Valuation* of the various crops seems unnecessary in their present condition, as it would only increase the expense of preparing the Working Plan without being of direct practical utility in enabling suggestions to be made for the improvement of the growing crops, because the present proposals are based entirely on area. The annual falls are either approximately equal in area, or approximately equal in productive capacity.

Objects of Management. The object in view of the owner is to bring the area under wood into such condition as to growing stock that the copses and plantations may yield the largest possible outturn in timber, in thinnings, and in coppice-wood, while adequate protection is at the same time afforded to the soil in order to ensure the maintenance, and on the poorer lands the enhancement, of its productivity. At the same time it is desired to obtain, meanwhile, whatever returns can be made available while the copses are being improved as to the quality and quantity of the crops forming the growing stock, and while the plantations are growing up towards marketable dimensions and maturity.

The Method of Treatment which seems best calculated for the attainment of these objects is (1) *in the case of the Copses*, continuation of copse treatment but with more regular and methodical selection of stores to form standard trees, and improvement as to density and kind of stock in the coppice underwood ; and (2) *in the case of the Plantations*, allowing them to grow up to maturity as high forest, with under-planting whenever this may become necessary for the protection of the soil.

The total area being only of comparatively small extent, it has not been considered necessary to form separate working circles for the copses and the high forest, as would otherwise have of course suggested itself if large areas were being dealt with.

Periodical Rotation of the Fall. For the same reason, namely, the comparative smallness of the area under copse, it seems essential that the rotation of the fall of standards and coppice should not exceed 20 years. Even this gives very small areas (averaging only 8½ acres) to be dealt with each year ; but considerations regarding the overwood, the underwood, and the maintenance of the productivity of the soil all militate against the fixation

* Part I., giving a resumé of the situation, nature, and past history of the woods, has been omitted, for the sake of brevity, as not essential for illustration of the principles adopted in framing the Working Plan.

† Appendix B, the *Field Book*, giving detailed descriptions of the crops and the special treatment recommended for each, has also been omitted for the same reasons.

of any lower period of rotation. As, however, the vast majority of the trees now forming the standards have short boles not capable of being improved so much in financial value as longer, cleaner stems would be by retention, and as their large and widely branching crowns interfere much more than is desirable with the growth of the underwood, it has been arranged that the fall should first of all, before introducing this 20 years' rotation, pass over the whole of the areas under copse during the next ten years (1899-1900 to 1908-1909), and that at the end of this time the fall of one twentieth of the area each year will then be adopted (1909-1910 to 1928-1929). While this course is prescribed mainly with a view to effecting, as speedily as seems feasible, improvements in the condition both of the standard trees and of the coppice, it is also at the same time intended to bring in revenue till the time when thinnings from the coniferous plantations may be expected to become remunerative and to contribute annually to the income from the woodland portions of the estate.

For the coniferous plantations growing into high forest it would be premature to prescribe the period of rotation in the meantime. All that can at present be said is that, except for unforeseen accidents, they will (with the exception of IIc. and IId. which should be cleared and utilised at once) probably reach their financial maturity about the age of 60 or 70 years. At the age of about 40 to 45 years, or 30 to 45 years if the younger plantations are allowed to grow up in fair canopy, provision will usually have to be made for underwood to protect the soil, a partial clearance of the crop being effected for this purpose, after the young trees have culminated in their rate of growth in height. In portions of some of the older plantations (*e.g.* parts stocked with 30-years-old larch in Wolmer Plantation, IVf.) this is already requisite, even without any further clearance of stems in addition to those already removed, except such as are badly cankered. Hence, in the case of the coniferous plantations merely a scheme of thinnings is proposed for the next ten years.

A. Tabular Statement of Fellings in Copses for the first 10 Years (1899-1900 to 1908-1909), being a Short Provisional Rotation for the Special Improvement of both the Overwood and the Underwood :—

Year.	Block of Estate.	Compt.	Name of Copse.	Portion for Fall.	Approximate Area of Fall. Acres.	Total Fall of the Year. Acres.
1899-1900	IX.	C	Temple Hanger .	Whole	16½	
	VIII.	C	Cornbrooks Hanger .	„	5	21½
1900-1901	VIII.	A	Snapwood .	E. part	17½	17½

A. Tabular Statement of Fellings in Copses—*continued.*

Year.	Block of Estate.	Compt.	Name of Copse.	Portion for Fall.	Approximate Area of Fall. Acres.	Total fall of the Year. Acres.
1901-1902	IV.	A	Blackmoor Wood . .	S.E. and S.W. parts	15	
	XI.	A	Oakhanger Pond . .	Whole	2¼	17¼
1902-1903	IX.	F	Iron Paddock Copse . .	Whole	17	17
1903-1904	VIII.	A	Snapwood .	W. part	16	16
1904-1905	VII.	A	Squiresfield Hanger ..	Whole	2½	
	VII.	C	Lane Hanger	„	2½	
	IX.	G	Sothrington Lane Side .	„	4	
	XII.	A	Claypit Copse	„	3	
	XII.	B	Oakwood Row	„	½	12½
1905-1906	IX.	E	Plainbarn Copse . .	N.W. part	10	
	VIII.	D	Bradshott Wood . .	S. part	8	18
1906-1907	IV.	B	Hazel Copse .	Whole	3	
	IV.	C	Lower Ridges Copse . .	„	1½	
	IV.	D	Upper Ridges Copse . .	„	¾	
	IV.	E	Highfield Copse . .	„	2½	
	VIII.	F	Bushy Copse .	„	5	
	VIII.	G	Island Copse .	„	1½	
	VII.	B	Homefield Hanger .	„	1	
	VII.	D	The Alder Bed . .	„	2	17¼
1907-1908	IX.	E	Plainbarn Copse . .	S.E. part	11	
	VIII.	D	Bradshott Wood . .	N. part	7	18
1908-1909	IV.	A	Blackmoor Wood . .	N.W. part	16	16
				Total		171 Acres.
				Average Area of Annual Fall		17 Acres.

B. Tabular Statement of the Regular Fellings, with Normal Rotation for the following 20 Years (1909-1910 to 1928-1929).

Year.	Block of Estate.	Compt.	Name of Copse.	Portion for Fall.	Approximate Area of Fall. Acres.	Total Fall of the Year. Acres.
1909-1910	IX.	C	Temple Hanger .	N.E. part	6½	6½*
1910-1911	IX.	C	Temple Hanger .	S.W. and N.W. parts	10	10
1911-1912	VIII.	C	Cornbrooks Hanger .	Whole	5	
	XI.	A	Oakhanger Pond . .	„	2¼	7¼
1912-1913	VIII.	A	Snapwood .	E. part	9	9
1913-1914	VIII.	A	Snapwood .	E. Central part	8½	8½
1914-1915	IV.	A	Blackmoor Wood . .	S.E. part	7	7½
1915-1916	IV.	A	Blackmoor Wood . .	S.W. part	7½	7½
1916-1917	IX.	F	Iron Paddock Copse . .	N.E. part	8½	8½
1917-1918	IX.	F	Iron Paddock Copse . .	S.W. part	8½	8½
1918-1919	VIII.	A	Snapwood ..	W.Central part	8	8
1919-1920	VIII.	A	Snapwood .	W. part	8	8
1920-1921	VII.	A	Squiresfield Hanger .	Whole	2½	
	VII.	C	Lane Hanger	„	2½	
	IX.	G	Sothrington Lane Side ..	„	4	9

* The lower, sheltered, and more productive portion.

B. Tabular Statement of the Regular Fellings—*continued.*

Year.	Block of Estate.	Compt.	Name of Copse.	Portion for Fall.	Approximate Area of Fall. Acres.	Total fall of the Year. Acres.
1921-1922	IX.	E	Plainbarn Copse . .	N.W. part	10	10
1922 1923	VIII.	D	Bradshott Wood . .	S. part	8	
	XII.	A	Claypit Copse	Whole	3	
	XII.	B	Oakwood Row . .	,,	½	11½
1923-1924	IV.	B	Hazel Copse .	Whole	3	
	IV.	C	Lower Ridges Copse . .	,,	1½	
	IV.	D	Upper Ridges Copse . .	,,	¾	
	IV.	E	Highfield Copse . .	,,	2½	
	VII.	B	Homefield Hanger .	,,	1	8¾
1924-1925	VIII.	F	Busby Copse .	Whole	5	
	VIII.	G	Island Copse .	,,	1½	
	VII.	D	The Alder Bed . .	,,	2	8½
1925-1926	IX.	E	Plainbarn Copse . .	S.E. part	11	11
1926-1927	VIII.	D	Bradshott Wood . .	N. part	7	7
1927-1928	IV.	A	Blackmoor Wood . .	N.E. part	8	8
1928-1929	IV.	A	Blackmoor Wood . .	N.W. part	8	8
				Total		171 Acres.
				Average Area of Annual Fall		8½ Acres

Under ordinary circumstances it would have been advisable to locate the falls so that they follow in sequence from N.E. to S.W., as the heaviest and wettest winds come from the S.W. But as the copses do not form large compact blocks, and as past experience has shown that no great local danger may be apprehended on this account, it seems unnecessary to sacrifice other advantages connected with the present age of the coppice in various compartments, merely to obtain additional security from a danger which is not imminent. Where practicable without sacrificing immature crops, the falls have been located so as to run from N.E. to S.W., and felling operations should annually be commenced at the N.E. side of the fall, continuing thence in a S.W. direction till completion. But on hill-sides the fall should also be commenced at the top and continued downwards in order to minimise damage to stools during the process of felling and extracting.

C. Thinnings, &c., in the Conifer Plantations, during the next 10 Years (1899-1900 to 1908-1909).

Year.	Block of Estate.	Compt.	Name of Plantation.	Area. Acres.	Treatment recommended.
1899-1900	II.	C	Eveley Field Larches	5	Utilise Larch and replace with Corsican Pine.
	II.	D	Eveley Field Larches	3	Utilise Larch and replace with Corsican Pine.
	III.	B	Rhododendron Plantation	9	Sow Corsican Pine on prepared patches.
	VIII.	B	Cornbrooks Plantation	7	Fill existing blanks
	VIII.	E	Bradshott Plantation	1	" "
	IX.	A	Rhode Plantation	10	Cut out softwoods, and sow blanks with Sycamore on prepared patches.
	IX.	B	Temple Larches	5	Thin out suppressed and badly diseased stems only.
	IX.	D	Temple Hop Garden Plantation	2	Fill blanks with Sycamore, Ash, and Chestnut.
1900-1901	I.	A	Eveley Corner	16	Remove all dead branches and snags by cutting or sawing them off close to the stem; broken or diseased poles to be at same time thinned out.
	I.	B	Eveley Allotment	2	
	I.	C	Eveley Birchwood	2	
	II.	A	Church Plantation	39	
	II.	B	Lemon's Firs	4	
	III.	A	Vicarage Plantation	14	
	IV.	F	Wolmer Plantation	10½	
	XI.	B	Sandy Lane Plantation	½	

C. THINNINGS, &C., IN THE CONIFER PLANTATIONS—*continued.*

Year.	Block of Estate.	Compt.	Name of Plantation.	Area. Acres.	Treatment recommended.
1901-1902			All Young Plantations .		Fill blanks and cut out softwoods interfering with growth of main crop.
1902-1903	I.	C	Eveley Birchwood . .	2	To be strongly thinned and underplanted with Corsican Pine & Spruce.
	IV.	F	Wolmer Plantation . .	10¼	To be lightly thinned.
1903-1904	III.	A	Vicarage Plantation . .	14	To be lightly thinned.
	XI.	B	Sandy Lane Plantation .	½	,, ,,
1904-1905	II.	A	Church Plantation . .	39	To be lightly thinned.
1905-1906	I.	A	Eveley Corner	16	To be lightly thinned.
	I.	B	Eveley Allotment . .	2	,, ,,
	II.	B	Lemon's Firs .	4	,, ,,
	II.	C	Eveley Field Larches .	5	,, ,,
	II.	D	Eveley Field Larches . .	3	,, ,,
1906-1907			All Young Plantations .		Cut out softwoods interfering with growth of main crop.
1907-1908	III.	A	Vicarage Plantation . .	14	To be thinned.
	IV.	F	Wolmer Plantation	10¼	,,
	XI.	B	Sandy Lane Plantation .	½	,,
1908-1909	II.	A	Church Plantation . .	39	To be thinned.

NOTE.—The light thinnings recommended should only extend, during the next five or six years, to the removal of suppressed, sickly, or badly cankered stems; but at each time of thinning, all snags of dead branches should be cut or sawn off close to the stem. The subsequent thinnings may be carried out much more freely, in some cases even extending to partial clearance and the formation of a new crop as underwood.

Part III.—Mode of carrying out the Fellings and other Operations recommended.

Detailed recommendations have been made in the *Field Book** as to treatment of the various woods, but it may be convenient to give here a general summary of the operations intended to be carried out :—

(a) *As regards the Standards in the copses.* The overwood at present existing is at variance with economic treatment in three respects, namely :—

1. The trees run far too much into branches, instead of forming clean, long boles.
2. The standards are nothing like regularly distributed over the falls.
3. There is no regular gradation of age-classes in the overwood.

These defects can only very gradually be remedied, and it will take at least three periods of rotation (of 20 years each) to bring the copses into the normal condition which the recommendations of the Working Plan, as now framed, aim at ultimately attaining.

Something may, however, at once be done to correct the excessive branch development and to improve the marketable value of the stems by the removal of lower branches not exceeding about three inches in diameter. When this is done, the branches should be clean cut or sawn off close to the trunk—the lower side being cut into first of all, to prevent tearing of the bark down the stem—and the wound-surfaces should be well coated with tar to prevent wound-rot. Tarring should be repeated subsequently, till the wounds cicatrise completely. But this operation, which has already in some of the copses been carried out to a considerable extent, must be conducted with caution. If proceeded with to any excessive degree, it is very apt to cause a flush of adventitious shoots along the lower portion of the stem, which may lead to stag-headedness and decay of the crown of the tree. Such pruning of branches should be done as soon as possible after the fall of the leaf in autumn, when the trees contain their minimum of sap and moisture. Apart from such partial treatment, there is no remedy for the excessive branch development and dissipation of vital energy in this manner. Standards of this nature can only be felled and utilised as soon as convenient, their places being gradually filled by the retention of young stores of better growth. This measure forms also the only practicable way of removing the second and third objections to the existing condition of the copses; for it enables the young stores to be more or less regularly distributed over each area, in greater or less numbers according to the productivity of the soil; and it ultimately furnishes a regular gradation of standards, each class varying in age by the 20 years which form the period of rotation of the coppice.

Owing to the great irregularity of the present crops, in which old standards are frequent but young stores scarce, the speedy formation of different classes of standards varying regularly according to age can only be achieved in course of time. With this end in view, the storing of overwood should be regulated as follows :—

See footnote to page 119.

STORING OF OAK STANDARDS IN COPSE, THE ROTATION OF THE FALL BEING ONCE EVERY 20 YEARS.

Age-Class of Standards.	Number of Standards selected to remain.	Age. Years.	Average Individual Growing-space at Commencement of each Rotation. Sq. feet.	Total Area overshadowed by the Standards.	
				Just after each Fall. Sq. feet.	Just before each Fall. Sq. feet.
Young Stores .	40	20	25	1,000	7,000
Double Stores.	20	40	175	3,500	9,000
Young Trees .	10	60	450	4,500	7,000
Old Trees .	5	80	700	3,500	5,000
Total	75			12,500	28,000
Proportion of overshadowing by Standards.				about $\frac{2}{7}$ of area	nearly $\frac{2}{3}$ of area.

NOTE.—For *ash*, the number of standards may be fifty per cent. in excess of above for oak; and mixtures of oak and ash as overwood should be calculated on these bases.

Considering the good quality of the soil, the above estimated amount of overshadowing towards the close of each period of rotation does not seem such as will prove excessively prejudicial to the coppice underwood; but the overwood is most to be considered, as likely to yield the main portion of the revenue. In addition to the clearance of the coppice, each fall will every 20 years be carried out as follows :—

Removed during each Fall.			Standards left after each Fall.			Remarks.
Class.	Age. Years.	Number.	Class.	Age. Years.	Number.	
Coppice . .	20	all	Coppice Stools			At each fall there will therefore be removed, along with the coppice, *all* the old trees, *an equal number* of young trees, *twice as many* double stores, and *four times as many* young stores.
Young Stores .	40	20	Young Stores	20	40	
Double Stores .	60	10	Double Stores	40	20	
Young Trees .	80	5	Young Trees .	60	10	
Old Trees .	100	5	Old Trees .	80	5	
	Total	40		Total	75	

The young stems selected as stores should be of seedling growth, if available ; and in any case they should be of good, straight development, with a well-shaped, compact crown of foliage. At each fall the inferior stems of each class in the overwood should be cleared away and utilised, leaving the best to attain the larger and more remunerative dimensions. As the future prospects point to advantage in the storing of ash, this tree should, on the whole, receive the preference when selecting the standards, not only on account of a larger number being retainable per acre, but also because, thus treated, it may be expected to attain its full maturity within 80 to 100 years ; whereas oak might often require 100 to 120 years, and the latter, involving five classes of standards, seems inadvisable in dealing with the small areas now under treatment. As a general rule it will perhaps be found advisable to remove all the ash standards at the age of 80 years, and only to allow oak to grow up as old trees to 100 years of age.*

Where some of the older standards may have to be removed before the fall of the coppice, they should be lopped of all large branches and of the crown in order to reduce the amount of damage done to the underwood when felling

(B) *As regards the Coppice underwood.*—The present condition of the underwood is abnormal in two respects, namely :—

1. In many places there are blanks, or the stock is far from being of normal density ;
2. Over most of the area the stock consists of species of trees which are not the most remunerative kinds that can be grown on and in the given soil and situation.

These defects can be much more easily and speedily remedied than the defects in the overwood. By sowing or dibbling in seeds of oak, ash, maple, sycamore, chestnut, beech, and in damp places also hornbeam, on prepared patches in autumn or spring much can be done to improve the density of the underwood, and to raise up seedlings from which a good class of stores may be selected to form standards. These patches may be made of about four feet square, the earth being delved up and thoroughly mixed and pulversed before sowing the hardwood seeds. The soil-covering should vary according to the size of the seed, being somewhat over an inch of earth in the case of acorns and chestnuts. Although slower in attaining the object in view, the sowing and dibbling in of seeds of hardwoods has the advantages over planting of being much the cheapest method of improving the crop, and of being far less exposed to danger from rabbits, as local experience has shown. Material assistance can also be effectively rendered by the local system of "plashing" or layering ash and other hardwoods. This method of layering is strongly to be recommended in moist localities prone to heavy growth of weeds which would be likely to choke seedlings. Both of these measures should be carried out to a large extent during the next two or three years, so that, if this can be conveniently

* In many cases Ash in copses will probably attain full maturity at a less age, say about 60 years.

done, the whole area under copse (171 acres) may be gone over and improved within a very short period. If this suggestion be carried out, then at the time of the first regular fall of coppice the outer seedlings round all such dibbled patches should be plashed and the inner seedlings allowed to grow up to form the future stores. Most of the copsewoods seem well suited for the growth of ash and sycamore, and these species should be encouraged as largely as may be found practicable. Birch and aspen should be treated as weeds and cut out whenever they are found interfering with the growth of hazel and hardwoods, and the latter should be freed from interference by hazel wherever the more valuable species requires assistance in the individual struggle for light and growing-space.

If this can be arranged for, it would, in my opinion, be a very advantageous and a remunerative operation to go over the coppice-woods during the third year after the fall for the purpose of cleaning them of all weeds (including the softwoods, birch, aspen, willow) interfering with hardwoods, and of thinning out the number of shoots springing from the stools. If this latter operation be not carried out, then the energy of growth often becomes dissipated over about 6 to 10 shoots in place of being concentrated on the more rapid development of from 2 or 3 to 5 or 6 of the more vigorous stool-shoots.

(c) *As regards the Plantations.*—As these young crops are most of them showing the disadvantages arising from their having been formed at too great distances between the individual plants (up to 6 feet × 6 feet), the best thing to be done for the next few years is to avoid disturbing the canopy now formed, or still in process of formation, and to limit operations to the removal of dead branches and snags, and the cutting out of suppressed or badly diseased poles. Remunerative thinnings may be commenced in about 4 or 5 year's time, and continued regularly thereafter at intervals of about 5 years. Some of the plantations may then be partially cleared and a new crop raised beneath, the best trees being retained as standards to thicken into specially remunerative dimensions.

Where Scots and Corsican pine have been grown together, the latter seems to develop more vigorously and to attain the larger dimensions. It should consequently receive the preference in all future plantations on the sandy pine soils throughout the eastern portion of the estate.

Experiments should be made as early as convenient (see *Field Book*, Wolmer Plantation, IV. f.) with the sowing of Corsican pine on prepared patches. If this operation prove successful, as may reasonably be expected, it will show that young plantations can be raised without wire-fencing against rabbits, and will thus enable operations in this direction to be extended on a larger scale and at much less cost than the plantations which have been formed in the past.

Cost of Planting and Distances between Plants. Recent plantations have been made at 4 feet × 4 feet, and have cost about £8 an acre, including fencing against rabbits. Although costing more, plantations at 3 feet × 3 feet seem on the whole preferable, for they form canopy sooner As at the same time thinnings will prove remunerative earlier, this tends to ultimately equalise the cost of young plantations formed at 3 feet and at 4 feet

by the time they reach 12 or 15 years of age ; while there can be no question about the closer planting being much more likely to yield a cleaner and taller class of poles, free from knots and snags affecting the quality of the timber.

New afforestation in 1899-1900. As regards the area it is intended to bring under forest this year, I would suggest, in place of planting, the experimental sowing of larch and Corsican pine in ploughed lines three feet apart—running parallel, *horizontally*, and not down the hill-side—next spring, in such manner that three lines of larch should alternate with one line of Corsican pine. As broadcast sowing of larch over the whole area requires about 14 or 15 pounds an acre, the amount of seed required for strip-sowing in furrows in this way should not exceed about 7 to 8 pounds per acre ; while about 3 to 4 pounds of seed per acre should suffice for the Corsican pine.

Though requiring some weeding, this method of raising a young crop should be considerably cheaper than planting, while it will have the additional advantage of securing a thicker crop. Oak, ash, sycamore, maple, and Douglas fir can also, whenever convenient during the next two or three years, be planted out among the larch and pine in such places and to such extent as may then seem desirable, only the better portions of the soil being thus utilised while blanks in the poorer parts can be filled up with Corsican pine.

Wind-mantles. Many of the woods and plantations, and especially the smaller ones, are somewhat exposed to the action of winds along their south-western edges. In all such cases it seems advisable to plant two or three rows of spruce or Corsican pine closely together along the exposed edges, and to allow them to retain their foliage down to the ground, so as to form an efficient wind-mantle.

Forecast of the conditions of the Crop in 1928-1929. In the copses the underwood should be of normal density, and consisting to a large extent of hardwoods and other species according to the local variations of soil and situation ; while from the overwood the majority of the old branching trees will have been removed and their places taken by standards of better growth, more regularly distributed over the falls, and tending towards regular gradation in age-classes. These objects cannot possibly be completely attained within the next 30 years ; but the various steps recommended will all tend in this direction, and will enable subsequent operations to be carried out regularly to completion and to the attainment of a normal condition of both overwood and underwood.

Many of the conifer plantations will in 30 years' time have reached maturity, which is early attained on the poorer classes of sandy soil, and will be in process of regeneration. But special consideration of the treatment to be accorded to these depends so essentially on their growth during the next 10 years (1899-1900 to 1908-1909) that the present Working Plan does not in their case look beyond this short period. At the end of this the plantations should be in normal canopy, and the older crops should be yielding remunerative returns in the way of thinnings.

The formation of Nurseries seems unnecessary for such small areas of

woodlands as are here dealt with. For whatever planting is required it seems preferable to draw the supplies from nurserymen, as hitherto.

Maintenance of Fences, Roads, Rides, &c. No new works of this nature are necessary. On the contrary, if sowings and dibblings of larch, Corsican pine, and hardwoods prove successful, this will enable considerable reduction of expenditure to be made with regard to the fencing of young plantations.

Financial Results of Proposed Plan of Working. As the next 30 years are in reality a period of transition for the copsewoods (during which the overwood will be brought from a very irregular towards a normal condition), as the monetary returns therefrom during such period will depend more on the extent to which the existing standards are cleared and utilised than on the yield of coppice, as the value of the thinnings and partial clearance of the older conifer plantations cannot yet be estimated with any approach to accuracy, and as the financial status will probably be greatly influenced by the formation of new plantations and by concrete circumstances connected with their formation (*e.g.* if sowings prove successful, so that fencing and the more expensive method of planting may become unnecessary), it seems inexpedient to attempt to make any detailed financial forecast. So many specific data would have to be assumed, that the estimate could have no practical value at present.

When once the woods have been brought into normal condition their average annual out-turn should be :—

Kind of Wood.	Area. Acres.	Out-turn of Produce. Per Acre.	Out-turn of Produce. Average Total Annually.	Remarks.
Copse	8½	5 old Oak (or 7-8 old Ash) 5 young Oak (or 7-8 Ash) 10 double Stores of Oak (or 15 Ash) 20 Stores of Oak (or 30 of Ash)	42 Oak (or 63 Ash) 42 Oak (or 63 Ash) 85 Oak (or 127 Ash) 170 Oak (or 255 Ash) Bark from 340 Oak aged 40 to 100 years	It may safely be estimated that the value of Oak and Ash timber 30 years hence will be greater than it is at present, and that the market value of clean, well-grown stems will be considerably higher than the price now obtainable for short-boled, branching trees.
	8½	. . .	8½ acres of coppice underwood	
Plantations (now existing)	129¾	Thinnings every 5 years from all plantations from about 15 to 30 or 40 years, and partial clearance from age of 40 to 50 years, followed by gradual removal of the mature trees at about 60 or 70 to 80 or 90 years of age.		

The nearer the copsewoods are brought towards a normal condition—that is to say after the preliminary rotation of 10 years (1899-1900 to 1908-1909), and after the first regular rotation of 20 years 1909-1910 to 1928-1829)—the better should their financial outturn also be. It therefore seems safe to say, and it is all that can safely be said, that if the provisions recommended in this Working Plan be regularly followed they will result in larger material and better monetary returns, will enhance the capital represented by soil plus growing stock, and, by providing greater density throughout the coppice underwoods and the plantations, will increase and maintain the productivity of the soil.

Control Books.—As it is desirable that extra clerical work should be avoided in the estate office, the existing records of timber, &c., cut and disposed of should be maintained as nearly as possible in the manner hitherto customary. The only modification therefore proposed is the alteration of the out-turn statement in the following form:—

Year of Fall.	Block of Estate.	Compt.	Name of Copse or Plantation.	Work Done.	Approx. Area of Fall. Acres.	Outturn. Bavins.	Timber.	Posts.	Hop-poles.	Bark.	Cordwood.	Rails and Lugs.	Pea-sticks.	Hedge-hooks.	Hurdle-rods.	Hurdles.	Hurdle Shackles.	Stakes and Posts.	Hedging-rods.	Broom Bands.	Broom Handles.	Receipts. £ s. d.	Expenditure. £ s. d.
			Copses:																				
1899-1900	IX.	C	Temple Hanger (whole)	As prescribed in Plan	16½																		
	VIII.	C	Cornbrooks Hanger (whole)	,,	5																		
			Plantations:																				
	II.	C	Eveley Field Larches	As in Plan	5																		
	II.	D	,, ,,	,,	3																		
	III.	B	Rhododendron	,,	9																		
	VIII.	B	Cornbrooks	,,	7																		
	VIII.	E	Bradshott	,,	1																		
	IX.	A	Rhode	,,	10																		
	IX.	B	Temple Larches	,,	5																		
	IX.	D	Temple Hop Garden	,,	2																		

NOTE.—Deviations from the prescriptions of the Working Plan should be noted from year to year, so as to facilitate its revision at any future period.

Executive Staff.—The provisions of the Working Plan do not necessitate any alteration in the nature or extent of the staff hitherto employed in looking after the woods.

Appendix A.—Summary of Copsewoods and of Plantations.

(*Note*—The Block Numbers refer to recognised divisions of the whole estate.)

I. *Copsewoods.*

Block of Estate.	Compt.	Name of Copse.	Area; Acres.	Coppice.		Standards.	
				Last Fall.	Present age, Years.	Girth, Feet.	Estimated age, Years.
IV.	A	Blackmoor Wood .	31	1889, 1890, 1892, 1893, 1894, 1896, 1897, 1898	1, 2, 3, 5, 6, 7, 9, & 10	2 to 6	30-40 to 70-80
	B	Hazel Copse . .	3	1894	5	„	up to 70-80
	C	Lower Ridges Copse	1½	1894	5	„	„
	D	Upper Ridges Copse	¾	1894	5	„	„
	E	Highfield Copse .	2½	1894	5	4 to 6	50 to 80
Total area in Block, acres .			38¾				
VII.	A	Squire's Field Hanger	2½	1890	9	3 to 4	30 to 50
	B	Home Field Hanger .	1	1896	3	„	„
	C	Lane Hanger . .	2½	1893	6	„	„
	D	The Alder Bed . .	2	1897	2	up to 5	up to 50-60
Total area of Block, acres .			8				
VIII.	A	Snapwood . .	33½	1889, 1891, 1893, 1894, 1895, 1898	1, 4, 5, 6, 8, & 10		30 to 40
	C	Corn Brooks Hanger	5	1888, 1893	6 & 11	6 to 7	90 to 120
	D	Bradshott Wood .	15	1892, 1894, 1896, 1898	1, 3, 5, & 7	up to 4	up to 50-60
	F	Busby Copse . .	5	1896	3		35 to 40
	G	Island Copse . .	1½	1896	3		50 to 60
Total area in Block, acres .			60				

I. *Copsewoods*—continued.

Block of Estate.	Compt.	Name of Copse.	Area; Acres.	Coppice.		Standards.	
				Last Fall.	Present age, Years.	Girth, Feet.	Estimated age, Years.
IX.	C	Temple Hanger .	16½	1888, 1889, 1893, 1894	up to 10-12		Oak, 50 to 80 Ash, 40 to 50
	E	Plain Barn Copse .	21	1890, 1894, 1895, 1896, 1897	3, 4	3 to 4	50 to 60
	F	Iron Paddock Copse	17	1892, 1893, 1894	5, 6, 7	3 to 4	50 to 60
	G	Sothrington Lane Side . . .	4	1893	6	up to 7 to 8	up to about 120-150
		Total area in Block, acres .	58½				
XI.	A	Oakhanger Pond .	2¼		17, 18	4 to 6	40 to 60
		Total area of Block, acres .	2¼				
XII.	A	Claypit Copse . .	3	1891	8	up to 2¼	20 to 30
	B	Oakwood Row . .	½		3	up to 6-7	80 to 100
		Total area of Block, acres .	3½				
		Total area under Copse .	171	acres.			

II. *Plantations* (consisting mostly of Pine and Larch.)

Block of Estate.	Compt.	Name of Plantation.	Area, Acres.	Species of Crop.	Age of Plantations, Years.
I.	A	Eveley Corner . .	16	Scotch Pine .	25-35
	B	Eveley Allotment . .	2	„ .	25-35
	C	Eveley Birchwood . .	2	Birch . .	32
		Total area in Block, acres .	20		
II.	A	Church Plantation . .	39	Scots Pine	33
	B	Lemon's Firs . . .	4	Scots Pine, Oak	29
	C	Eveley Field Larches .	5	Larch . .	14
	D	„ .	3	Pine and Larch	12
		Total area in Block, acres .	51		

II. *Plantations*—continued.

Block of Estate.	Compt.	Name of Plantation.	Area, Acres.	Species of Crop.	Age of Plantations, Years.
III.	A	Vicarage Plantation .	14	Scots Pine, Larch	33
	B	Rhododendron Plantation (Total area 12 acres; under wood 9 acres only)	9	Scots Pine, Larch, Corsican Pine, Birch .	29; 17-19
		Total area in Block, acres .	23		
IV.	F	Wolmer Plantation .	10¼	Scots Pine, Larch, Chestnut, Birch .	30
		Total area in Block, acres .	10¼		
VIII.	B	Cornbrook's Plantation .	7	Larch, Corsican Pine, Douglas Fir, Ash, Sycamore, Oak .	4
	E	Bradshott Plantation .	1	„	4
		Total area in Block, acres .	8		
IX.	A	Rhode Plantation . .	10	Pines, Firs, Larch, Ash, Sycamore .	4
	B	Temple Larches . .	5	Larch, Ash, Chestnut .	13
	D	Temple Hop Garden Plantation . . .	2	Pines, Larch, Ash, Sycamore	3
		Total area in Block, acres .	17		
XI.	B	Sandy Lane Plantation .	½	Scots Pine .	29
		Total area in Block, acres .	½		
		Total area under Plantations* . .	129¾	acres.	

The Gross Total area under Woods is therefore :—

Copse .	. 171 acres.
Plantations	. 129¾ „
Total	. 300¾ acres.

* Abstract of Conifer Woods.

	Acres.
Plantations under 5 years of age	20
„ from 5 to 15 years of age . . .	13
„ „ 15 to 25 „ . . .	4
„ „ 25 to 35 „ . . .	92¾
Total	129¾

Mr. C. Bidwell (Fellow) said that it was with great pleasure that he rose to propose a hearty vote of thanks to the author of the able and interesting Paper, which must command the earnest attention of any meeting of practical men identified with forest management. He feared the indictment was true that a great many landowners and even land agents in this country were, he would not say entirely ignorant but, not so well versed as they should be in forest management. The fact could, he thought, hardly be disputed that the question of the future of timber in England was becoming a very serious one and, even at the present time, good ash timber was very difficult to obtain, and was daily getting more scarce.

His experience was that landowners were generally willing to cut down timber, but it was often a difficult matter to persuade them to plant. The suggestion made on page 117, towards the end of Dr. Nisbet's Paper, that Government should step in and assist landowners by lending them money at a low rate of interest for the purpose of planting their land would, he thought, be very beneficial, both to the individual and to the country at large.

He could not attempt after just hearing a Paper of this character, read by such an expert as Dr. Nisbet, to criticise it; but he felt sure that he had the opinion of all present with him when he stated that The Institution was anxious to do everything possible to forward the knowledge of Forestry, and to assist the Junior Members by giving them every opportunity of gaining such knowledge. He would, personally, be very glad to see a National School of Forestry founded by the Government.

The matter had been too long neglected. The need

for such a school was becoming more and more pressing, and before long it would be imperative that steps should be taken for the preservation of woods and for initiating and stimulating planting.

In Norfolk and Suffolk there was a good deal of sporting land, and his experience was that owners were very reluctant to allow any treatment of woodlands which would interfere with sport. For instance, it was not easy to do anything in the woods of Norfolk in the way of attention to the timber or underwood until the beginning of February. He could not himself see any reason why sport and profitable timber-growing should not exist together, provided due care and attention were exercised.

Mr. Robt. Anderson (Fellow) said he had the greatest pleasure in seconding the vote of thanks to Dr. Nisbet, not only for this Paper, but also for the valuable contributions he had made to the standard literature of Forestry.

He thought that in view of the possible timber famine which the author indicated, and the enhanced price that might consequently prevail, it was important that everyone interested in woodlands should be ready to take advantage of a probably improving market, and that this could only be done by acting on well-proved and economic methods. Even now, he thought, better prices were beginning to prevail. In his experience both the timber and underwood of the past year had sold at an increase of some 25 per cent. over the prices of a year ago, and he hoped and believed that this rise in values would be continued.

There were, he thought, two points to which sufficient

attention was not given in England. We had not a sufficient density of crop and we had not the necessary actuarial knowledge as to the most profitable moment at which our timber crop should be realised. These two very important points were brought out very strongly in all the text-books dealing with the subject.

With regard to Working Plans, there was no doubt that in all woodlands a prearranged system of management was most important. But Working Plans, after all, had no regard to impecunious inheritors or to the death duties. To take a case in point : about two years ago he was employed to report on some extensive woodlands and to draw up a Working Plan. This he did; but unfortunately the owner of those woodlands shortly afterwards died, and he had heard within the last month or two that his Working Plan had been practically put in the fire, and that the greater portion of the timber was to be at once felled in order to provide for the Chancellor of the Exchequer's demands upon the estate.

He did not quite see how State aid was to be employed unless there were State inspectors appointed to see how things were going on and to regulate the management of the woods of which they had the charge. The last speaker had mentioned the jealousy of sporting tenants in East Anglia, who did not like to have underwood interfered with. Could it be imagined that a Government inspector, who would probably entirely denude the estates of ground game, would be more welcome ?

He did not think that State aid and the consequent State interference with private property was at all compatible with the independent spirit of English landowners, who, he was sure, would brook no dual control of their estates.

The author had mentioned the subject of labour, and

had expressed a hope that with the increased labour which would be necessary for the increased cultivation of woodlands the labourer would be encouraged to remain upon the soil. In his (the speaker's) experience it was difficult to get men nowadays to do any work in woods. The labour was too hard for them. They were well paid, but they did not care about the work. He was connected with a property where there were upwards of thirty woodmen permanently employed. After the wood work was finished in the spring, they were employed on the farm in turnip-hoeing, in hay-making, harvesting, and such work. But in spite of that advantage, and the good wages which they earned, he found no young men ready to start work in the woods. He wished it were otherwise, but he was merely stating the fact.

He could not altogether agree with what Dr. Nisbet said about the rating of woods. He hoped he might not be regarded as a captious critic; but what the paper stated to be the principle of the rating of woodland was not the principle which he had always considered to be in force. The rating of woodland was settled by an Act passed in 1874, with which no doubt the members present were conversant.

Professor W. B. Fisher (Visitor) said the question of the exhaustion of the softwood in the world was brought forward by Dr. Schlich before the Imperial Institute about two years ago, and no doubt the supply of building timber all over the world was entirely dependent on this production of softwood. He thought it had been clearly shown by Dr. Schlich, in a paper which had a wide circulation that, except for Canada, there would be no adequate supply of softwood in the

whole world. The United States appreciated the danger, and had secured the services, as chief of the Forestry Department, of a man who had been splendidly trained in France and Switzerland, and who might be trusted to intelligently and energetically manage the forests. But in face of the enormous increase in the population it was at present absolutely impossible to meet the demand for timber from the forests in the United States alone, and large demands were being made on imported timber from Canada. If Canada would imitate the example of the United States and appoint a man of the same ability the difficulty might be met. At present, as had been pointed out by Dr. Nisbet and by Dr. Schlich among others, not only was matured timber in Canada being wastefully cut, but an enormous quantity of immature timber was being now converted into wood pulp.

In many splendid forests in Canada one might see the youngest stuff being cut up and made into paper. The growing colonies, like the Cape and other parts of Africa, were very short of timber, and imported large quantities for constructive works and for the extension of the railways. England was of course a small country, but as it had the sea all round it, so long as the timber supply of other countries held out we should probably be able to get a fair share of building material. But to deal with one small matter: with coal rising to so high a price, good beech logs for domestic fires would be very welcome to the majority of householders.

He had lately spent a couple of days in the fine woods of the Earl of Yarborough, and he found that the one reason why those woods were so successful and profitable was that planting had for many years been continuous. The Yarborough family had steadily planted for the last hundred years, and the result was a series

of matured woods successively ready to be cut, yielding some £5,000 a year from an area of 5,000 acres. This was entirely due to continuous and regular planting. There was perhaps another matter which had something to do with the success of the planting in that particular woodland in Lincolnshire: foxes were preserved and rabbits were discouraged. He was told that traps were put down for rabbits, and that nearly every rabbit trapped was eaten by the foxes during the night. He believed there was no better friend to British Forestry than the fox. The present war showed how valuable good horsemanship was; the preservation of foxes should therefore be encouraged not less in the interests of manliness than in order to get rid of the rabbits.

He had lately been asked to give a lecture on Forestry in Ireland. He had seen some woods belonging to Lord Meath, and others, but found that the conditions there were not the same as in the Earl of Yarborough's woods, to which he had alluded. The planting was intermittent, and so long as that was the case there could never be successful Forestry. On the east coast of Ireland there was the best timber market in the world, easy of access to the ports of Glasgow and Liverpool and Bristol and the coalfields of Wales. He saw timber standing there, 35 years old, worth £50 an acre as it stood, and he understood that one landowner near Dublin actually got something like £125 an acre for larch wood 60 years old. The great difficulty in Ireland was that the old landowners were losing control of the land, and the present owners were not people of very long views. The result was that timber was disappearing at a most fearful rate, so that Ireland, which from its climate was an ideal country for the production of timber, and from its situation most admirably

adapted for a market, was now, he supposed, the worst timbered country in the world—excepting perhaps the Sahara.

As a member of the English Arboricultural Society he had to thank The Surveyors' Institution for a very hospitable reception during the summer. They had held a meeting in that same room, and he must say that the young men who were coming on and the young foresters who were now managing estates in this country showed themselves possessed of remarkable intelligence. He had been surprised at the wide knowledge of Forestry which they had of late acquired. He had conversed with those men and had travelled with them, and he felt sure that if landowners were a little more liberal in the way of remuneration any number of good foresters would be forthcoming. To show that sufficient pay was not always given, he might mention that he knew one landowner in particular who was getting more than a thousand pounds a year out of his forest, and who paid his forester 15*s.* a week, which was hardly sufficient pay to induce a spirit of keen competition among highly trained men.

The three things to be done were to go on steadily planting, to get a practical Working Plan drawn up by an expert, and to pay enough to secure the services of a thoroughly competent forester. He had much pleasure in supporting the vote of thanks to Dr. Nisbet for his useful paper.

Mr. G. Cadell (Associate) said he noticed that Dr. Nisbet had made a special point of the probable rise in timber prices. His words were, "I have purposely dwelt " on these matters at some length in order to try and " prove to you, and through you to the owners of the

"landed estates under your management, that the prices "for timber which have hitherto obtained seem certain to "become gradually and permanently enhanced within the "next few years." He believed that the present state of the timber market was almost unique, the demand considerably outstripping the supply. Of course the supply, as Dr. Nisbet and other speakers had often said, was chiefly of coniferous timber, the ever-increasing demand for which by paper and match factories caused an enormous drain on the market. But he did not think that Dr. Nisbet need have confined his remarks to this particular kind of timber. He believed, from what he had been told by Scotch timber merchants, that there was likely to be presently a considerable demand for beech, and, as Professor Fisher had pointed out, if there were a good supply of beech logs available many people would prefer to use them rather than expensive coal for domestic purposes. One of the most valuable woods at present was good common ash, the supply of which had been for a long time very meagre.

Referring to the subject of the existing condition of English woodlands, Dr. Nisbet had pointed out that "large numbers of timber trees in copsewoods are "rendered almost useless by neglect. Not being felled "when mature, they gradually deteriorate in value. "Thus they become unprofitable in themselves, and "occupy soil which should be bearing a vigorous crop "of younger wood." The case was stated in almost precisely similar terms in a letter he had received from a large proprietor in Scotland complaining of the poor prices realised by his timber. He said that his larch was about 125 years old—much older than it should be for profit—and he considered that it had gained nothing in value of late years, whereas the growth of a young

crop had been lost. That was an error in one direction.

Another error in quite an opposite direction was also frequently committed. Trees were often forced to a marketable size by too heavy thinnings. When such wood came into competition with imported timber the wideness of the rings betrayed its inherent weakness, and it sold only when nothing else could be obtained. But this opened up the whole question of the comparative values of home and foreign timbers, which entirely depended on the method of growth. This was, however, too large a subject to import into the present discussion.

With reference to the Working Plan set out in the Paper, which was designed to draw an annual profit from the woodlands and to leave the capital untouched, he thought the thanks of Members were due not only to Dr. Nisbet but also to Lord Selborne, who had commissioned him to carry out such a plan. As Dr. Nisbet had pointed out, "It does not follow that a Working "Plan will at once or in the immediate future lead to "profitable returns being obtained from woods which "had hitherto been unremunerative." The proprietor must be content rather to postpone the income which he derived from his woods than to obtain a present profit. Such a scheme represented a policy not only long-sighted, but he thought he might say patriotic as well.

Mr. E. W. Hudson (Fellow) said he had hoped to hear the opinion of some other experts on the important matters dealt with in the Paper. As for himself he was unfortunately not an expert in Forestry, but merely an observer; but even as an observer he could not fail to appreciate

the immense value of Dr. Nisbet's suggestions. He took it that the object of the author in preparing his Paper had been, to a large extent, to induce landowners to pay more attention to the planting of timber suitable for constructional purposes. But he should like to know whether it was possible to show such a rate of profit as to induce those who had a life interest only in an estate to go in largely for planting. In the early part of this century there was, he believed, a great rage amongst landowners for rushing into planting, more especially in the northern parts of the country; and, if he was not mistaken, the financial result afterwards obtained from that planting was very unsatisfactory indeed. He had in his memory a paper read before the Institution in which it was stated that, in the north of Britain, it was not always possible to obtain a price for small timber which would really bring in any return whatever, and in fact the expense of cartage, and getting it down to the line of railway from the high lands, for instance, was so great as not to encourage planting to any extent.* That was a point upon which he should like information. He thought, perhaps, that one of the leaders in that movement may have been Sir Walter Scott, who planted largely at Abbotsford, but the result was such as not to encourage the Scottish landlords to follow his example, except for purely ornamental and agricultural advantages.

With regard to the supplies of foreign timber on which we were now drawing, one great desideratum in town road-pavement was quietness, and wood-block pavement was now being very extensively laid throughout the country, requiring immense quantities of soft-

* Sir M. Stewart, Discussion on Mr. Cadell's Paper, Surveyors' Institution *Transactions*, vol. xxvii. p. 346.

wood; but that pavement possessed but a short life, and the use of fir was to a large extent being superseded by Australian hardwood, with which mile after mile of the London streets were paved, and it seemed to him altogether a wasteful and extravagant system.

It was, of course, a most important question whether such a material was not most unsuitable for road-paving, and he thought a better-adapted form of tire for the wheels of vehicles should be sought for to ensure quietness, and wood discarded for paving purposes.

Fire-resisting material was now being introduced to a very large extent in building, and he hoped to see in London, as in Glasgow, a still greater increase of the use of iron and concrete in construction, but in the case of small houses one could hardly hope to see such a system universally adopted, though more extended use of it in large buildings would in every way effect a considerable saving in timber, and leave more of it available for small buildings and general work.

Mr. C. Bidwell, in moving the adjournment of the discussion on behalf of Mr. Daniel Watney, said he would remind members that in the year 1879 there was issued, as a Supplement to Volume XI. of *The Transactions*, a very valuable return relating to colonial timber, prepared by the secretary, Mr. J. C. Rogers. This return was published by the Colonial Office and presented to both Houses of Parliament. He mentioned this fact in order to show that the Institution had before now made an endeavour to throw some light on the important question of the competition of imported with home-grown wood, and the resources of the world as regards the timber supply.

Dr. NISBET said that as the adjournment of the discussion had been moved, he would confine his remarks on the present occasion to thanking the Members very sincerely for the kind way in which they had listened to his Paper. After the adjourned discussion he hoped to deal with several points which had been raised by the various speakers.

The Vote of Thanks having been put and carried unanimously, the discussion was then adjourned.

AT

THE ORDINARY GENERAL MEETING,

Held on Monday, January 29th, 1900.

THOMAS MILLER RICKMAN (President) in the Chair.

The discussion was resumed on the Paper read at the Meeting of January 15th, 1900, by Dr. John Nisbet (Colonial Fellow), entitled, "Forest Management, with Suggestions for the Economic Treatment of Woodlands in the British Isles."

The President, before calling upon Mr. Watney to resume the discussion, requested the Secretary to read the following communications from Members who were unable, for various reasons, to be present at the Meeting.

From Mr. T. L. LIGHTFOOT, Fellow.

There is not the least doubt that the mismanagement, or perhaps it would be more accurate to say the want of management, of our forests, woods, and plantations is one of the most crying evils, apparent to every land agent conversant with the working of English landed estates. There are doubtless notable exceptions to be found, but they are few, and, as a general rule, a tenant for life interests himself vastly more in the present than the future productiveness of the area under timber over which he has been called to preside.

Dr. Nisbet, in the valuable Paper recently read, most forcibly draws our attention to the rapidly decreasing supplies of timber as furnished by the United States and Canada, and to the ever-increasing demand from all quarters of the globe for the productions of those countries, as well as of Russia, Sweden, and Norway. He says: "Britain is menaced by a coming "scarcity of timber, and anything like the low rates which have previously "obtained and are now still obtaining can hardly prevail for many years "longer."

He also says in another part of his Paper : " It seems clear

"(1) That adequate supplies can only be obtained from foreign or " colonial sources so long as Britain retains the command of the seas.

"(2) That owing to the shrinkage in the world's coniferous forests " combined with the growing demands for increased supplies, prices for " this kind of timber must soon rise, and will go on steadily increasing."

A little later in his Paper he goes on to ask :

" (1) Are the conditions at present obtaining on large landed estates in " Britain such as will enable their owners to reap the financial advantages " that the anticipated rise in prices would indicate as likely to present " themselves ?

" (2) If not, what can be done to improve the economic conditions ? "

Now I do not propose to describe the state of the woods and forests with which I am acquainted, nor to draw attention in detail to the many shortcomings of their management. These are apparent enough to every one who has had occasion to visit them in his professional capacity as woodman, or more happily, perhaps, as a follower of the chase or as the bearer of a breechloader ; but I hope to draw attention to a few of the reasons which militate against the proper management of the timber-bearing area in these isles, and if the Paper which we have heard read and the remarks which it elicits from those taking part in the subsequent discussion should rouse some feeling of interest in the various parts of the country which we represent, and some desire to remedy the present shortcomings, the subject will not have been introduced and discussed in vain.

What then are the causes that prevent us from developing our possible home supplies of timber ?

I believe the principal are these :

1. Ignorance and apathy.
2. Want of capital.
3. Preservation of game.

To deal with the first. There is many a beautiful estate in this country where no serious effort has ever been made to grow a *crop* of woodland timber, at all events within the memory of any one living. A certain number of trees have more or less come to maturity and more or less cover the ground, but no attempt has been made to turn the soil to the best advantage, and so long as it answers the description of " woodland " the estate goes from father to son, each of whom in his turn takes toll out of it in the shape of *thinnings*, but neither of whom seriously contemplates the necessities of those who succeed him, or thinks by his own efforts to leave matters better than he found them. Many a landowner never gives any thought at all to the matter. Woodcraft is not in his line. He wants his attention drawn to the subject, and a plan thought out for him by his responsible agent, whereby he can at small outlay replant any portion of his woodlands that require it, seldom fails to interest him. I have seen a most apathetic landowner, whose time would otherwise have hung heavy on his hands, converted into an enthusiastic woodman, spending hours, almost daily, for years, with the latest pruning appliances in his hands, removing superfluous branches, or training trees. Fear of the expense

deters many a landowner who is ignorant of Forestry from going into the matter, and in such cases it is the duty of a land agent to take the initiative and show him how it can be done.

To refer to the second point, want of capital

I can fancy I hear the landowner say : " Yes, that is all very true I " dare say, but how can I get money to replant ? "

Probably, if the matter is carefully investigated, there are sufficient trees standing in his woods, many of which are past their best, to pay the cost, or if not enough to pay the entire cost of replanting the whole area felled, at all events to replant a portion of it, leaving a space vacant between that and the next standing timber, which if not already planted with underwood and so paying its way, will be none the worse for a rest, and may, if only capable of growing fern or briars, improve the shooting for a time, and be ready for a crop when money is available for replanting.

To quote again from Dr. Nisbet's Paper : " Considering the long " periods of time which ordinarily elapse before newly formed woodlands " yield any return, Government might reasonably be asked to make " advances of money at a low rate of interest to landowners desirous of " planting portions of their estates."

With this suggestion I agree, but the difficulty which has to be overcome is the length of time that must elapse in cases of replanting before any profit can be realised, and the possibility of several life tenants in succession having to pay the annual charge while the trees grow, without a penny of advantage to themselves. The same reason no doubt deters landowners from borrowing money for planting from any public company, for while the farm buildings on an estate *must* be kept in order by some such means (if ordinary income is insufficient), or the farms could not be let, there is not the same obligation to replant the woods, which at a very small outlay provide sport if not profit, and so they are content to let the subject rest till a more convenient season.

But if there is truth in what Dr. Nisbet says about the growing scarcity of timber and the consequently enhanced prices (and I am of opinion that there is), surely it is time that we awake from our apathy and proceed to set our woods in order.

Under recent legislation the term for which money can be borrowed for estate improvements has been extended from 25 to 40 years. This of course lowers the rate of annual rent-charge to repay principal and interest, and the portion of rent-charge consisting of principal can be repaid out of settled moneys, leaving only the interest portion to be paid by the tenant for life. The annual rate of interest on loans charged by one of the improvement companies whose prospectus I have before me, to repay principal and interest in 40 years, is under 5 per cent. Failing other means of planting up waste lands, which, instead of providing a few couple of rabbits annually, might be utilised as thriving plantations, I commend this system as worthy of consideration, believing as I do that in many cases ignorance and apathy alone prevent this course from being adopted.

When I allude to preservation of game, I mean, of course, ground game.

On every estate that I know, whether the landowner himself, or a

tenant of the same, or the ordinary farm tenant has the shooting, the ground game is the difficulty.

The Scotsman who advised his son, to stick in a tree when he had nothing else to do, as it would be growing whilst he was sleeping, had happily no experience of ground game, or he would have added, "Pro- "vided the rabbits and hares are killed down."

I confess I am no advocate for so sweeping a plan of campaign. Nothing keeps the landed proprietors in the country like the love of sport, and supposing the old family place has to be let, it is in nine cases out of ten the capabilities for sport that let it. I look therefore with mixed feelings at a rabbit anywhere, but in young plantations with absolute horror. In this connection it may be of advantage (as above mentioned), if the timber cut down will not realise enough to cover the whole ground with young plants, that the portion replanted should be fenced round and the remainder be left for ground game.

I could elaborate and criticise methods of planting, and suggest trees to be planted and their subsequent managment; but a plan that would answer well in one part of the country might be worse than useless in another. The local agent ought to know what is best for his district, and if he does not he can find plenty of people of experience competent to advise him.

Let every land agent look to his woods, and certainly stick in a tree in every suitable vacant spot, and if he can find an efficient means, short of extermination, to check the ravages of ground game at a light expense, he will earn the eternal gratitude of the profession.

From Mr. GEORGE CADELL (Associate).

I regret that I shall not be able to be present at the renewed discussion on Dr. Nisbet's most useful Paper, for I hope that a point will then be elucidated which I personally left for the authoritative exposition of more competent men.

It is this: What are the circumstances which justify an agent in recommending planting, and the borrowing of money for this purpose, either from the Treasury or from a private company?

In the instance adduced by Professor Fisher, Lord Yarborough reaps the fruits of the wise and continuous policy of his predecessors, and has sufficiently sure data to go on if he desires either to maintain or to extend his woods.

But this is an exceptional case. As Dr. Nisbet says in his Paper (p. 114): "For woods of this class (copsewoods), the best rotation is "usually about 25 to 30 years." The average proprietor can ensure no continuity of the policy of planting which he initiates. On the contrary, he has a very ugly factor against him in the shape of the incidence, and it may be the recurrence, of death duties before that policy has had time to fructify.

The Working Plan is a necessity of Forestry, but it is adapted to the policy of the State rather than of the individual, and the State has a

present other and more pressing demands upon its resources. The most that could now be expected from the Treasury would be, as has been suggested more than once, the remission of all rates and taxes upon lands which have been newly planted until the timber crops have begun to pay. Such a concession in the present state of agriculture would no doubt be wisely given by way of a sort of national insurance, if for no other reason. But bearing in mind the fact that small plantations are deterrently costly, especially in the expensive but necessary item of fencing, it would be difficult, even under such a concession, to place the enterprise of planting in a seductive light before the average proprietor as a commercial undertaking with the data at present at our command.

I could wish no better outcome of the discussion than the disclosure of such data as shall be attractive. But in the higher interests of British Forestry (the fostering and extension of which is so greatly to be desired). I hope that such data will not be sought exclusively, or even principally, in balance sheets of profit and loss on sales of timber, but rather in the permanent improvement and rental values of estates in which they will play a conspicuous and most useful part.

From Mr. F. J. Brown, Fellow.

Living in the immediate district of a portion of the Chiltern Hills I have personally had a good opportunity of watching the development of the beechwood interest, and I can safely say that well-managed beechwoods are returning five times, and in many cases six times, the annual income that the adjoining agricultural land is yielding.

No more profitable timber than beech can be grown in this district, and at the present time my firm is able to make from 1*s.* 4*d.* to 1*s.* 6*d.* per cube foot of the best trees, and from 10*d.* to 1*s.* 3*d.* of smaller and rougher timber. This, of course, does not compare with the value of oak and ash, but these classes of timber cannot be grown as "a crop" in the same way that beechwoods are treated and thinned at frequent intervals. It would, I grant, be a difficult matter to start to plant land with beech, for it is never found to grow successfully where planted, but it is nearly certain to thrive well where it is naturally reproduced and has sufficient light overhead to allow of development. Several woods have been to an extent ruined for some years by inattention to proper thinning, but where they have been attended to in a business-like way they are stocked with growing trees of the value of from £80 to £100 an acre. Larch plantations on the chalk subsoil, overlaid with a good cap of flinty clay, have done remarkably well and are very profitable to grow. As an instance, a portion of a plantation was recently cut handsmooth, and consisted of about 220 matured trees per acre, which realised as many pounds. The original number was about 2,700, and from the time that the poles were large enough to use for cutting through the centre for rails, &c., this plantation has always yielded its annual quota to the estate account. The age of the trees is known to be about 70 years, one man having been found who assisted in planting the original stock.

With reference to the question of rating, no woods in the county of Bucks are or need be rated at more than 10*s.* an acre, and the provision of the Act of Elizabeth to the effect that woodland shall only be rated at its "*natural and unimproved* value" is still in force.

I am strongly of opinion that no better investment for trust funds connected with landed estates exists than planting larch, if properly carried out under good superintendence, and on sites properly chosen. The same applies to the planting of ash and sycamore, both fast-growing trees under suitable conditions, and which have a ready market in nearly all stages of growth.

I cannot support the suggestion that the planting of barren wastes ought to be attempted, as I am convinced that had nature bestowed sufficient inherent capabilities upon this class of lands it would also have empowered it to naturally produce something considerably more valuable than it now does.

From Mr. A. McDonald Brown (Fellow).

I am sorry I am unable to attend the discussion of Mr. Nisbet's Paper. I am quite willing to accept his forecast of the timber market, coming as it does from one whose wide experience of the timber supplies of the world gives him authority to offer a reliable opinion, and confirming, as it does, the conclusion to which many of us must have been tending from the indications observable. If we grant, then, that timber estates will in future become of considerably more importance, it follows that it is essential that increased attention should be given to sound economic management and to planting fresh areas.

Dealing only with the latter point, the practical questions to which we have to address ourselves are (1) the inducements to plant and (2) the ways and means for doing so.

The Settled Land Acts have doubtless in many cases operated against landowners planting, inasmuch as they have done away with the power of an owner to secure the possession of the lands in his family indefinitely.

But there are of course many cases in which there is every prospect of the estate descending in the direct line, and here there is an inducement to plant if the means are available. The great problem is how the means are to be provided in cases where there is no considerable amount of spare capital. We may, I think, put aside the hope of direct assistance from the State, by advances on easy terms. There exists no longer the national reason of the "wooden walls" for encouraging Forestry, and the principle of State advances has never been applied to the many highly desirable agricultural improvements which have been carried out by private enterprise.

We must look, I think, rather in the direction of a Woods Improvement Company, to be formed by individuals under statutory powers and limitations analogous to the Lands Improvement Companies, to advance money for planting under sufficient, but not vexatious, provisions for

securing that the improvement is carried out and maintained in an efficient manner, and to postpone the repayments until realisation begins.

As to the rating question, I do not consider that the light rates to which plantations are subject will really deter owners from planting, and legislation to relieve them would be made a great deal more of, as a concession to the landed interest, than the results would warrant.

It would be an advantage if some of our Members who join in the discussion would favour us with a summary of the existing facilities (though I fear they are few) offered to planters by the recent Land Improvement Act and by previous legislation.

The discussion was then resumed by

Mr. Daniel Watney (Past-President) who said that he wished first to personally express his appreciation of the value of Dr. Nisbet's very able Paper, which must have involved a great deal of time, care, and thought, in its preparation. If, in his few remarks, he differed on some points from the author, he could only hope for forgiveness. It had been said that Great Britain was menaced by a scarcity of timber, but he (the speaker) did not think this was so. If the annual increment in timber standing in the country were taken at only 3 per cent. per annum he did not think that on large estates, or in fact on any estates, taking an average of five years, it would be found that such increment was annually cut. He was fortified in this opinion by his old friend the late Mr. John Clutton, than whom there was no greater authority in England, who expressed his conviction that on estates as a whole the annual increment was not cut.

The Blue Books stated that there were 3,000,000 acres of woodland in the British Islands (he should have thought there were more). In a Paper read by Professor Fisher of Cooper's Hill before the Royal Dublin Society, it was estimated that there were 4,000,000 acres in Great

Britain, and 2,000,000 acres in Ireland which were available for planting, and as he gathered from the report he had seen of the Paper, those 6,000,000 acres were expected to be capable of yielding 75 cube feet per acre per annum. He could not quite understand this, for if those 75 cube feet were put at the price of 6*d.* a foot even, the yield would be 37*s.* 6*d.* per acre per annum. He did not gather from the report for how many years that would be realised; but presumably, after felling, the land would have to be cleared and replanted.

The best results from timber with which he was acquainted, came from the Chiltern Hills, in Buckinghamshire. In the case of the West Wycombe Estate, with which he was concerned some few years ago in the case of *Dashwood* v. *Magniac*, the estate books for over 100 years showed the annual income from those woods as 30*s.* an acre. Those woods were situated on the tops of hills, on land which was not really fit for agriculture, and which, if it were broken up, would certainly not be worth 5*s.* an acre. And then it must be remembered that these woods were kept up entirely by natural reproduction, and without any attempt at planting, and there seemed no reason why those woods, so long as chair-making went on in that district, should not continue to yield 30*s.* an acre per annum.

It was quite true that the demand for timber for constructional and other purposes increased yearly, and it was estimated (he thought by Dr. Nisbet) that £16,000,000 worth of fir was imported annually to this country. But he did not think it was necessary to be alarmed about any famine in the timber market for very many years to come. He remembered that years ago, when he first began business, the Navy took a very large quantity of English oak and foreign timber as well, and

there was a similar scare then as to the giving out of the supply; the "wooden walls of old England" were superseded by iron and steel vessels, and it must not be forgotten that iron and steel were now being increasingly used for constructional purposes.

In his Paper, Dr. Nisbet referred to wood-pulp. He had seen many wood-pulp factories in Sweden, and he believed they only took the refuse from the saw-mills. After the fir was cut into planks and boards, the refuse was sent to the pulp-mills, so that there was no waste. It was simply using the waste products. This was the case, he believed, at the factories at Trolhatta, which no doubt many were familiar with, where there were very large saw-mills and wood-pulp works.

Then Dr. Nisbet, alluding to the Canadian forests, said they were likely to last 40 years, but he thought this estimate hardly took into due consideration the fact that there was a natural reproduction going on all over that continent, and those acquainted with the seedlings of Scotch fir knew how very quickly they grew. He thought there would be a continuous natural reproduction, and that at the end of 40 years the seedlings which had grown from time to time, and were now growing, would have come to a very large crop.

In Russia and Sweden, where the forests were under State control, the chief difficulty experienced was to prevent the cutting of immature timber. As the demand increased, the proprietors were all anxious to send their stuff into the market, and the difficulty was to prevent their doing so too soon.

He did not think that the supply of timber was going to be exhausted in anything like 40 years, or double 40 years, for the forests of America, Canada,

Australia, India, and California might be described as without end. The difficulty consisted in the means of transport, for want of which trees were falling into decay; but as railways and other means of transport increased, so we should get, he had not the smallest doubt, a very large supply of timber from those parts where it now decayed or was burnt, because there was no facility for getting it to market, and the land had to be cleared for cultivation.

In France and Germany the forests belonged to the Government, and were managed in a very different way —in what was commonly called the German way of Forestry. That was an exceedingly good plan, but he did not think it would answer in this country where there were not such large areas of land to deal with, or such a ready sale for wood as in those parts of the world where all the fuel was wood.

Then he differed from Dr. Nisbet as to State assistance in planting. The only way in which an owner could get loans for planting would be by applying either to the Board of Agriculture or some other Government department, or some company, and he would then, it appeared to him, have to hand over the control and management of all his woodlands and plantations. He did not think the landowners of this country would be content to transfer to an outsider the absolute control of a large part of their estates, and, he might say, in these times of depression of agriculture, the most enjoyable part of their estates. If money for planting were advanced by any authority, he presumed it would be advanced on certificate, and that certificate would have to be granted by a man who had seen the planting, and who had almost absolute control of the mode of planting, and if a Government official had to do it he thought it

would be found rather an extravagant way of going to work.

Again, suppose the planting to have been done in the spring, and that by the end of the planting the owner had got his money. There might then come a very severe frost, strong winds, or a prolonged drought, and perhaps (he had seen it himself) in the following spring some 30 per cent. or 40 per cent. of the plants would be dead. Was the owner to fill up those gaps out of his own money or to get further State assistance? If so there would be an extra charge.

With regard to the effect of such a system on the shooting and the enjoyment of the estate, the owner would practically have to get rid at least of all his rabbits and would not be master of his own woods. If the State official, whoever he might be, should want to begin operations in November, what was to happen to the pheasant shooting? The official would have a right to say when the thinnings and fellings were to be done, and, practically, the owner would have no control over his estate.

One way in which State aid might be given with advantage was by the remission of rates and taxes on newly planted areas of land for, say, 20 or 30 years, and another way in which help might be rendered was by establishing schools of Forestry, of which there were not many in this country at the present time. There was Cooper's Hill, but he understood that to be for the training of foresters going out to the Indian forests. As far as he was aware the best practical school was at the Botanic Gardens in Edinburgh, where there was a system of practical Forestry instruction for the training of really practical men. He would recommend any land agent in search of a practical forester to communicate with

the Botanic Gardens in Edinburgh, and ask to be recommended a suitable man, and he was sure that such a man would be found at from, say, 50*s.* a week downwards.

The Surveyors' Institution held examinations in Forestry every year, and granted a special certificate to those members who passed the advanced examinations held in the month of June. He was not well acquainted with the Scottish Arboricultural Society, but he was a member of the English Arboricultural Society, the only Society in Great Britain or Ireland which held practical examinations and granted certificates, and who were glad to recommend trained men as foresters.

The suggestion had been made by Dr. Nisbet that instruction in economic Forestry should be given at the universities and technical colleges. A theoretical knowledge of Forestry was certainly very good, but he did not see much use in it unless it was accompanied by practical work in the forests and woodlands. A man wanted to know how to handle an axe, a cross-cut, the spade, the planting-tool, and all the other tools used in practical Forestry; and unless he could do practical work he did not think scientific work was of much good.

There was no doubt that some estates were at present very well managed, but in a general way there existed a sort of haphazard method, or want of method, which he should like to see superseded by practical and scientific treatment. One difficulty was that on many sporting and large estates the forester and the gamekeeper were very frequently at variance.

He was afraid Dr. Nisbet would think him over-critical, but he had not much faith in Working Plans He thought there should be general rules for thinning

plantations, and the thinning of woodlands, and for felling the crop when it arrived at maturity, but he did not think it possible to lay down any hard-and-fast rules. So much depended on the variations of soil and exposure to winds and elevation, and perhaps more than all these, on demand and supply. If there were two or three years of bad prices, an owner naturally did not cut so much, but if there was a good demand, he had something to fall back upon.

On many estates, in the same plantation some of the trees would grow well and some badly, and if they were sheltered they wanted thinning earlier than the others. Therefore, he held that it was difficult to make a hard-and-fast rule for thinning or management. There were other cases with which he was sure some members would be acquainted, where hardwood was planted with nurses, such as larch and Scotch, and where it would be found that the hardwood did not thrive, while the nurses did well, and it was necessary to cut out the hardwood and let the nurses stand.

Planting on estates was done for several reasons. First of all for ornament. An agent would point out to his employer, for instance, that the appearance of a certain bare hillside would be much improved by a plantation. But if it were done it was not possible to manage that hillside plantation commercially. It must be managed ornamentally and the trees must be of an ornamental character.

When planting commercially the practical forester might be left to regulate the selection of trees, and to treat the woodland in his own way.

Then there were plantations for shelter. An owner laid land down to grass and found it had no shelter, and that it was advisable to make a plantation for that purpose.

He would ask Dr. Nisbet (if he could not give it to the meeting that night) to contribute to the *Professional Notes* some tables of the expenses in some well-known locality, taking into consideration every expense attaching to the formation of a plantation. It was difficult at the present time to tell what the initial expense had been, and what actual interest had been yielded from year to year by a plantation which had been planted perhaps 60 or 70 years ago.

After all, the scientific and practical forester could not without experience understand all the details connected with the economic treatment of woodlands, and in gaining that experience he must expect to meet with many disappointments.

Mr. F. J. Smith (Fellow) said he was sure the Members present would appreciate the remarks of the last speaker as coming from a practical man fully acquainted with the subject under discussion.

The author of the Paper had to deal with a difficult subject, in which all surveyors who had to advise on the management of land were deeply interested, but to which he feared sufficient attention had not been paid.

Basing his argument on the recent increase in the prices of timber, Dr. Nisbet suggested that in future these prices would still further increase as the demand tended to exceed the supply, and went on to show that the vast forests of coniferous timber in Russia, Canada, Norway and Sweden would, without proper conservation, be in time exhausted. Whether or not that would be the case he was not prepared to say, but he believed that the present great demand for coniferous timber from all parts of the world would result in an enhanced price for British timber. He thought that all would agree

with Dr. Nisbet that practically, throughout Europe at least, the output of timber was not equal to the demand.

With regard to the colonies, Canada was he believed the greatest producer of coniferous timber, but for all that she had not realised the necessity for proper care and conservation of forests. The Canadian forests were probably sufficient to supply both the American and the British markets for a very long period, provided the Dominion would learn how to take care of the great wealth she possessed in her practically unlimited timber supply.

For the purpose of adding weight to his remarks he might be permitted to state (he hoped without any appearance of egotism) that during the last 15 years he had to deal with very large quantities of timber in Hampshire and he could testify to a steady general rise in prices. He did not say that the price of all timber was rising, but there was a distinct rise all round for hardwoods, and, especially during the last two or three years, there had been a very large increase in the value of beech, ash, and oak timber. Some reference has been made to beech from the woods at Wycombe; he might say that he had obtained as much as 1*s.* 6*d.* a foot for good beech.

Although the planting of forest trees might not be immediately profitable, he ventured to say that there were some cases, at any rate, where planting would be remunerative to the present owner or tenant for life; and there would come a time when planting would prove a spendid investment in the interest of those who come after. He might refer to the growth of larch, also in the county of Hampshire, where the thinnings had been saleable for hop-poles, and he was assured in his own mind, having regard to the price paid for larch, that

there was some poor agricultural land which might be more profitable if planted with trees than if badly farmed for corn.

He also agreed that the woods of estates were frequently either left to nature's care or were managed in an unpractical manner, and were therefore unremunerative. It was not his wish however to make any invidious remarks on the management of woodlands. He appreciated fully the difficulties of many agents who could and would do more under better conditions.

Was not it short-sighted policy for a nation to be content with the present supply of timber as "sufficient for "the day" when the ultimate insufficiency would assuredly prove the "evil thereof," and for any Government, whose duty it was to provide for contingencies so apparent, to neglect national resources in that respect? He ventured to submit that The Surveyors' Institution might well emphasise the necessity of providing British timber to meet British needs. Dr. Nisbet's suggestion of forming a School of Forestry he would also recommend to the Institution as one worthy of every careful consideration.

Mention had been made of the Royal Engineering College at Cooper's Hill. It was a most excellent institution, but, as had been stated, it was really intended for the Indian Civil Service and Forestry Department. There was at hand a splendid area for instruction and training in Windsor Forest and Parks, which was a Crown estate. There could be found the most magnificent timber, and if anyone wished to complete his education in Forestry, that was one of the places which he would recommend for study and observation. There was also the New Forest, covering some 50,000 acres, including a good deal of waste land, over which there were forest rights hardly consistent with what the manage-

ment of a forest should be. The Commoners who exercised forest rights were jealously protected by Verderers who were more careful of those rights than concerned in the decay of fine old woods, the nation's heritage, which according to M. Boppé, are hurrying to destruction in a manner deplorable to behold.

Perhaps it was fortunate for him that his early professional training was acquired in Windsor Forest and Parks, under the late deputy surveyor, one of whose first lessons was: "If you wish to know how to cut "down a tree, pull off your coat." This practical training was really one of the first things to bear in mind if one wished to attain a full knowledge of such a very practical science as that with which the land agent had to deal.

He was well acquainted with the estate on which Dr. Nisbet had based his Working Plan; in fact he was professionally connected with the estate adjoining. He took it of course that it was not suggested that the Working Plan adopted on the Selborne estate would be equally applicable to every estate, for circumstances must alter cases. It would be seen from Dr. Nisbet's plan that there were exceedingly rapid rises, from about 300 feet to 500 feet, and on those "hangers" as they were called, which were very steep indeed, one could find very first class ash-trees; in fact in one instance he remembered an ash-tree, nearly 65 feet long without a branch, which made 3*s.* 6*d.* a foot.

With reference to professional men whose services should be available as specialists for advising on matters appertaining to Forestry and the drawing up of Working Plans, while far from deprecating a proposal likely to be of practical utility, he would suggest that such experts should be specially qualified to deal with the

characteristics of *British-grown timber,* as adapted to the many varieties of soil and geological formation, climatic conditions, and exposure to prevailing winds, and in his opinion Working Plans must be based on those features in conformity with the peculiarities and amenities of the estate under consideration. Every plan must be based on the circumstances peculiar to the estate dealt with, but even then sometimes "the "best laid schemes o' mice an' men, gang aft a-gley" and it was well to remember that on some estates "underwood will pay for the horse before timber "will pay for the saddle." It appeared to him that it would be exceedingly difficult where there was a proper annual rotation cutting of underwood to just fit in the cutting of any growth of timber which might happen to have grown during the ten or twelve years preceding the cutting of the underwood, but while results were governed by circumstances it was desirable to have a system or plan to work upon.

He was not a believer in any hard-and-fast line with regard to either high, low, or close canopy, especially with regard to hardwood trees. It was obviously necessary to keep larch or other coniferous timber close in order to kill back young branches, but in the case of the hardwoods, he would venture to say, and he thought most of those present would agree with him, that their treatment must be governed entirely by experience. His experience, which was a life-long one, had taught him that there was a great deal of difference in the growth of hardwood-oak, ash, beech, and other trees. On some land, oak would grow to a towering height, while on other land it was perfectly dwarfed. He had seen many mistakes made in keeping oak too close together. On one large estate in Hampshire where he

once had the entire management of the woods, he remembered one particular plantation which was very well sheltered, but which had been spoiled by being kept too close together. He suggested that it should be judiciously thinned, and Mr. John Clutton was appealed to for his opinion and he approved this course. The wood referred to was carefully thinned, and the result surprised him as well as others. Down the bark of each of the trees there was now a wide opening, simply because he had loosened the jacket of the oaks and let them expand by the action of light and air, and there was now a well-developed growth of the oaks where previously they were close and stunted. As he had said, in dealing with hardwood, as distinct from coniferous timber, nature must sometimes be assisted to promote healthy and vigorous development.

Mr. H. H. Raschen (Visitor) said that he had been so very much interested in the discussion of Dr. Nisbet's Paper that he ventured that evening to ask permission to give his own views on the subject of providing a revenue for the cultivation of forests, the chance of providing capital for the purpose having been spoken of so discouragingly. His proposal was to produce a revenue out of fruit plantations, which could very well be established on selected sites, and made to go hand in hand with timber growth. Fruit plantations in this country had, so far, not been started, as regarded top fruit, on any business-like footing. There were only a few moderate-sized properly managed fruit plantations existing, which bore no proportion whatever to the acreage returned as under orchards. This figure was stated at 225,000 acres, but was utterly misleading, as quite half of that acreage represented cider orchards in a state more or less ancient

and decrepit, while the bulk of orchards aiming at production for market were in hardly a better condition.

Most of the figures provided with regard to the supplies of foreign timber and the markets of Russia and Sweden related to some years back, and he thought some more recent authoritative statistics would be interesting. A year ago he learnt that, considering that the consumption of wood in the United Kingdom during the previous two years had been rising rapidly, it was clear that while the yearly timber consumption of this country consisted of supplies from the north of Europe any complaints as to over-supply from that quarter were entirely exaggerated and unfair. As far as the Scandinavian production was concerned, while the Norwegian supply was practically retrogressive, even the stimulus of three years' rising prices had but to a very moderate extent increased the Swedish supplies. It was only because the high prices for all small dimensions had rendered possible the conversion of such diminutive logs as left no margin for covering the expenses of felling, floating, and sawing when on a lower basis of prices, and when the standing value of such trees was practically nil, or only based upon future growth that the supplies were upheld. That was a year ago, but this year it had been found that, although the Continental trade with the north was steadily expanding, it was the fluctuations of the British demand that formed, as previously, the determining influence on wood prices. Thus during 1896 and 1897 the free buying of British importers entirely outweighed the contrary tendencies of French and German dealers, who, as a result of their backward policy ultimately came into the market at the highest level. Not only had the production of redwood in the North of Europe been practically stationary during the past few

years, in spite of remunerative prices, but failing any opening up of new large sources of supply, such as the Siberian forests, the outlook for any important competition was strictly limited. The great ultimate corrective, however, on all these occasions had been the power shown by the Baltic exporters, as well as their American and Canadian rivals, to increase their production of wood under the impulse of higher prices. The kernel of the shippers' present position appeared to be that, pending possible but apparently still distant developments in Russia and Siberia, this indefinite power to extend production seemed absolutely to have reached its limit in Sweden and Finland, even if an important decline were not already imminent. On the other hand, it was evident to all importers that sellers' stocks this autumn were reduced to an absolute minimum, many shippers not even being able to fully execute contracts actually concluded. These were the opinions quoted it was true in trade circulars, but representing those of the largest shippers of timber.

The value of the import of mahogany was only a little over half a million pounds, whereas that of the soft coniferous wood had risen in 1899 to £22,200,000, and Sweden might expect to receive from Great Britain an addition in increased price for her wood already contracted for during 1900 of over £1,000,000 in excess of last year, and the British consumer would have to pay on his total timber requirements, including higher freights, an increase of probably not less than £3,000,000 over 1899 on the basis of that year's supply.

Had time sufficed he should much like to have drawn further attention to the desirability of combining with forest planting a thorough up-to-date system of growing fruit trees, the profits from which would com-

mence from the third year, the revenue thus derived being available for forest planting. He hoped, however, that on some future occasion this important matter would receive the attention it deserved.

The PRESIDENT, in asking the writer of the Paper to reply, said he hoped that Dr. Nisbet would give the Meeting some little account of the district of which he treated in the plans which had been published. He had had to do with the estate in old times in the way of building, but he should like to know the special peculiarity of it, and why the particular order of growing had been adopted.

Dr. NISBET, in reply, said he should like first of all to deal with the President's request. From the woods of Lord Selborne there was, long ago, a great deal of fine oak taken for the Navy. For some years during the late Earl's lifetime Lord Selborne had the woods in his own hands, and found that in many respects the management was not what it ought to have been, and having determined to have the advice of a professional forester on the subject, asked him (Dr. Nisbet) to undertake the work. Together they went over the whole of the woods very carefully, making a detailed field book, and discussing what the objects in his (Lord Selborne's) view were. That was a very important point, for a Working Plan was not a mere theoretical scheme for the management of woods on hard-and-fast lines. One must know what the proprietor's views were and what the objects were, and then try so to arrange the rotation of the falls and the whole treatment and management as best to secure the object in view of the proprietor. . In those woods there had been no regular storing of standards;

many of the old trees were over-mature, and many of them were so branching that they could never possibly form good boles. Those could be gradually utilised, and in accordance with the recommendation of the Working Plan new stores, of oak and ash principally, would be raised up to take the place of the present standards, so that in due course of time the woods would yield a better return than had hitherto been the case.

A great many of the conifer plantations had been planted at too large distances. There were none of them, he thought, under about four feet by four feet, and some of them ran to six feet by six feet. If some owners had followed their own ideas they would have gone on heavily thinning, with the result that they would probably have spoiled the trees for the timber of the future. But Lord Selborne was one of those enlightened noblemen who did not look merely at to-morrow or the day after, but who looked far ahead. His Lordship took the view, which may be believed to be the view of most landowners of eminence, that while he had the life-interest of the estate he should do his utmost to benefit it in every way: and Lord Selborne was doing the best he could for his sons and grandsons and those who succeeded him, without mainly considering immediate personal benefit to himself. Unless landowners took that view of their position, he should certainly not recommend them to go to the expense of a Working Plan, because in many cases the Working Plans must make recommendations which would mean permanent investment of money rather than any quick present return. While woodlands remained under the operation of well-considered Working Plans, the benefit was gradually going on from year to year. The capital value represented by the soil and the growing stock of timber must increase; and in course of time,

when the capital in the timber crops has been economically adjusted, the sustained annual returns must increase.

Mr. Watney, for whose criticisms he was very much obliged indeed, since the object of his Paper was to invite criticism, had said that he did not believe in any approaching timber scarcity.

It might be said that the cry of "Wolf, wolf," had so often been heard that it frightened no one.

To show that this warning had not been uttered today for the first time, it was mentioned by Mr. Bidwell at the last Meeting that there existed in the *Transactions* of the Institution a report drawn up by the Secretary, Mr. Rogers, nearly twenty years ago, which had also been printed as a Parliamentary paper. This report showed that some of the colonies had already taken steps in the direction of systematic care of their forests, and he thought it would have been well if the remaining colonies, which owed a large proportion of their wealth to their timber resources, had followed in their steps.

To go back to historical cries of "wolf" in this connection, when James I., who had insisted by statute on the planting of trees in Scotland, came to England, he issued an order for the storing of standards in copse-woods. There was even then a scarcity of timber, but James I. did a great deal to cut down the supply of wood, particularly in Ireland, when he began his colonisation schemes. Forest clearance continued rapidly under Charles I.; and again under Cromwell it went on so quickly that in the days of the Restoration there was a great scarcity of timber for the Royal Navy. Such being the case, the King hit upon the plan of getting John Evelyn of Wootton, one of the founders of the Royal Society of London, to write on the subject. Evelyn's *Sylva* was read before the Royal Society in October, 1662,

and was the first book ordered to be printed by that Society.

In 1608 the supply of oak timber in the New Forest exceeded 197,000 loads, but by 1707 it had sunk to only a tenth of that amount. Later on it rose again, chiefly through John Evelyn's having interested landowners in planting, but subsequently it again fell lower than ever.

At the end of the last century, when we were engaged in our great naval warfare, the supply of oak timber ran almost clean out, but then teak was brought from India, and its great advantages were at once recognised. Teak contained an essential oil which preserved iron and steel bolts, which might be taken out years afterwards, just as if the threads had been silvered; whereas the tannic acid in oak corroded the steel and ate away the wood. Since then oak had not been so largely used for ship-building. The imports of teak had gone on steadily increasing. In 1897-98, £1,590,598 worth was exported from Burma alone, and in addition to that there was a large Siamese supply.

In the early part of this century some articles by Sir Walter Scott appeared in the *Quarterly Review* in which he pointed out that a great many substitutes were being used for wood. He said that whereas formerly all the drain pipes in London were made of elm, nowadays their place was taken by iron and steel; and he made the peculiarly happy prophetic remark in the closing sentence of the article that perhaps some day we might even see our sea-going ships constructed entirely of iron. That, before the days of steam, was a very remarkable prophecy.

Scott's influence in Scotland and his articles in the *Quarterly Review* stimulated planting to a very great extent in the Highlands of Scotland, but the planting

was done in a non-methodical manner and not up to the level of the present scientific Forestry, as shown by the advice of the Laird of Dumbeidikes to his son "Ye may "be aye sticking in a tree, it will be growing when ye're "sleeping." Even conifers did not grow during the winter time, they merely transpired from the foliage, but for all that it was excellent advice and it was the cause of very many plantations being made. In 1832 a treatise published by the Society for the Propagation of Useful Knowledge distinctly prophesied a timber famine. That book was written by someone very much in advance of contemporary knowledge with regard to Forestry, and was a book very well worth reading, but it did not take into consideration the enormous revolution soon about to be effected by steam and by ocean-going steamships. If it had not been for steam communication by land and sea it would not have been possible to draw the supplies of timber from abroad that had reached us during the last half-century. The clearance of our natural woodlands to such an extent that less than four per cent. of the country was under forest would have been absolutely fatal long ago if it had not been for the ocean-going steamships and the railways.

The factors were different now. He did not say there would be a famine, because he did not believe it; but what he did say was that the rapidly increasing demands everywhere for more and more timber must raise prices. That was the crux of the whole question, and if prices were raised then the aspect of the Forestry question in Britain was quite a different one from what it had hitherto been. Even then, in many parts, the wood-pulp industry had grown to such an extent that

they were no longer content with using simply the slabs from sawn timber but were now using the immature trees, and in doing so were cutting off the supplies of large timber for the future.

The references in his Paper, to which Mr. Watney had alluded, were from pamphlets issued when New York State College was founded about a year and a half ago. The statement that, at the rate of cutting going on, the supply in Canada would only last forty years, seemed exaggerated. The woods in Canada aggregated a million and a quarter square miles, and constituted 37 per cent. of the total area; and to say that the largest supply of coniferous timber in the whole world would be exhausted in anything like forty years was not, he thought, at all a correct statement.

At the same time, it was not only the timber that was being utilised for lumber which depleted the forests, but fires were allowed to rage through them, and he had heard it said that very much larger quantities were being absolutely destroyed than were being utilised. If Canada had her forests properly conserved and properly treated, there was no doubt that she would continue to be the great timber storehouse, and that she would be able easily to supply all the deficiencies of the United States of America and all the wants of Great Britain.

With regard to the Australian and other hardwoods, he did not think there was much chance of our supply of hardwoods running out. It was not always easy to get the exact hardwoods desired, but other woods would take their places. Yet this was not always the case, as, for instance, in the case of ash. The coach-builders had such difficulty in getting ash that they wrote some time ago to the Board of Agriculture to ask assistance in the

matter. They were paying up to £11 a ton for the best ash in Northamptonshire and Leicestershire. They had tried foreign ash, but found that the foreign was not as good as British, and they asked the Board of Agriculture to do what it possibly could to induce landowners to plant more ash and to bring it on the market.

While referring to the various Australian hardwoods, he might say that enormous quantities of hardwood were grown and were destroyed every year in Burma. The natives were in the habit of burning the trees down and sowing a crop of rice on the clearing, and going next year to another patch which they cleared in the same way. That system was carried on by hundreds of thousands of people in the hills.

Before these latter hardwoods could profitably be placed on the British market there must be such a rise in prices as would make everything home-grown of marketable value. It was not so much, as Mr. Watney thought, the want of means of transport. The reason that they were not used was primarily because they had not yet shown a margin of profit; and to make those supplies of hardwood profitable meant such a rise in the price of timber in Britain as would necessarily make our own woods also very profitable indeed.

Some of the previous speakers had no faith in Working Plans, but he had never suggested that any hard-and-fast rules would apply to every estate. If that were so, there need only be a few printed formulæ, and everyone would know how to manage his estate. A Working Plan was not a panacea for all the errors of the past in the way of planting and extravagant thinning; and still less could it correct the mistake of having planted the wrong kinds of wood on certain soils. A Working Plan could only take into account the particular estate to

which it applied, the soil, the aspect, the age and condition of each separate plantation, and above all, as he had said, the views of the owner. Only then could it recommend the best way of utilising the existing crops and of providing the best returns in the future. But such a plan must necessarily be drawn up by a man of scientific training and practical experience of Forestry. Unless he had these qualifications he could not help an owner to remedy past defective management and to provide for future careful attention to the interests of the estate.

There seemed to be a consensus of opinion that more State aid should be given to instruction in Forestry. He thought himself that the foundation of Chairs of Forestry, if not of a National School of Forestry, would be a step in the right direction. But he quite agreed with Mr. Watney that practical instruction was certainly necessary. He always held that they could no more learn the art of Forestry without working in the forest than they could learn agriculture without going to the fields. It was a great misfortune that in Britain there was no State forest that could be taken as a model for training young men in practical Forestry. The excellent practical class which Mr. Watney mentioned, (Professor Balfour's class at the Botanic Gardens, Edinburgh), had turned out some very fine men, and he heartily agreed that if anyone wanted a good practical man Professor Balfour was the person to apply to.

There was in Britain no State forest which could be taken as a model, but Working Plans were now in force for the Forest of Dean, for the Duke of Bedford's estate, for Lord Selborne's estate, and for Mr. Munro Ferguson's estate of Raith in Scotland; and he was glad to know that Mr. Munro Ferguson's estate was

used by the Forestry class in Edinburgh as an example of forest management. As many woodlands were now being regularly dealt with on modern scientific principles, he thought the opportunities for acquiring a knowledge of practical forest management and of the work of different seasons of the year in the forest would increase as time went on.

He thought there was a consensus of opinion that State assistance should be given to landowners wishing to plant if it could be rendered in a way not open to too many objections. It was only by mooting such a question and by gathering the views of all those best qualified to judge that one could come to any sound practical decision. Even if the State could not make direct advances, yet invaluable encouragement and assistance might be given in the shape of amendments to the Lands Improvement, Settled Estates, and Board of Agriculture Acts.

If he had thought about it he would have brought with him some details with regard to the German forests. One system of aid for Forestry in Germany was practically a bank for assisting landowners in planting parts of the great Lüneburger Heide, which extended all across the Province of Hanover right away into Pomerania. It had been found that it worked perfectly well, that it afforded ample security, and that it was attended with the greatest advantage. State aid had also been given to a very considerable extent in reclaiming waste lands and planting them in Denmark, and not only had very large areas been brought under forest, but they were now paying well. The woods in Belgium aggregated only 1,750,000 acres—not much more than half our own—but they brought in a revenue

of £4,000,000 a year, which is probably much more than our woods yield.

It had been said by Mr. Watney that the annual increment of the British woods was not being cut. He (Dr. Nisbet) had pointed this out as, to a certain extent, one of the drawbacks to our Forestry. In many cases trees, particularly standard trees in copsewoods, were allowed to remain until they over-matured. They were not paying any interest on the capital which they represented, and it would be much better if they were cleared away and their place taken by younger timber of more vigorous growth. It was not economical to allow timber to stand when once it began to show signs of having reached its maturity, and while every year its increment decreased.

Well-managed Forestry and sport were certainly not incompatible. The area of the woodlands throughout Germany was about 34,000,000 acres, *i.e.* about eleven times the size of our own. There was splendid sport all over Germany with wild boar, and stags, and deer of various kinds, particularly in the mountains and in the coniferous forests. There were few pheasants, but pheasant-shooting could very well be combined with the management of copsewoods.

One very important point he wished to emphasise: when the stock of rabbits became so large that they quite overran the woods, there could be no Forestry that would pay. Not only did the rabbits eat the coppice, but in some cases they attacked large standard trees. He had seen trees within the last fortnight, of a fairly large size, the bark of which had been eaten off clean by rabbits.

In the woods under Mr. Anderson's charge at Ciren-

cester, parts of the land had been fenced in to show the action of superfluous rabbits on their growth. The effects were marvellous. Instead of useful self-planted ash and sycamore coming up freely and doing well, the place was simply cleared by the rabbits, and was an object lesson in itself.

A point was raised by Mr. Anderson with regard to labour, and later on Mr. Hudson wished to know if plantations paid a life tenant. There was a great deal of discussion about that before the Parliamentary Committee on Forestry in 1885-87. Mr. Dundas of Arniston said that they would not pay at all; but the good practical foresters then in charge of Strathspey, Athole, and Scone were unanimous in their opinion that they would pay very well indeed. Mr. Macgregor's evidence was: "(Q.) Do you think the forest area might be very "largely increased?—Very largely. (Q.) It can be "very largely extended with profit?—Yes. (Q.) Why "is not that done now?—I cannot tell. It is expen- "sive to some proprietors, and perhaps they are not "able. (Q.) Have the plantations on the Duke of "Bedford's estate been successful as a speculation?— "I think so. (Q.) But at present prices they are not?— "Even at present prices they are better than if left as "moorland in their original state."

It had been said in one of the letters read that there could be no question of planting moorland where Nature had not formed the crop. But most of the deer forests and the moors of Scotland had originally been under Scots pine. Those ancient forests were destroyed from time to time, principally by burning. When once the fire passed over the soil it killed the pine and spoiled the seed; then there could be no regeneration, for pine-trees did not shoot out from the stools.

The growth of timber for profit must, he thought, be worthy of consideration, and he would just give a few of the imports of forest produce in 1899, which amounted to £25,377,684 in value. Hewn timber, more than £5,000,000; sawn timber, £16,000,000; staves, £660,000; wood-pulp, nearly £2,000,000; tar and resin, over half a million; and mahogany, £693,000. Mahogany he specially mentioned because that and the teak from India, as well as jarrah from Australia, were woods which could not possibly be grown in England. Then it would not be fair to reckon the value of the sawn timber as £16,000,000 worth of timber, but £16,000,000 worth of labour plus timber. However, Britain imports annually about £18,000,000 worth of wood which might easily be grown at home.

When one came to consider the employment which that amount represented in planting, farming, tending, felling, transport, conversion, and distribution, it was possible to form a good idea of the source of wealth that England was allowing to lie neglected.

One point which Mr. Anderson raised was the rating of woodlands. This was very often done on more or less of an agricultural basis. In the *Professional Notes* of 1887 was a case in which Mr. W. Sturge was appointed to arbitrate between the assessors and Lord Bathurst for a reduction of the rates. The rating appealed against was £1,591, and his valuation was much lower. The reduced rating accepted by Lord Bathurst was £916, but Mr. Sturge placed on record his opinion that the reduced assessment was still too high. He (Dr. Nisbet) thought the subject one that should receive very lenient consideration by Government if they could only realise how important it was in many respects to encourage landowners to plant.

He should have very much pleasure, as opportunity might offer, in acceding to Mr. Watney's desire with regard to statistics about planting. It was, however, a very difficult matter. However well estate books were kept, it was difficult, throughout a long course of years to trace the debit and credit of all the different plantations, and on many estates there would not be found any but a very meagre record.

The PRESIDENT, in summing up the discussion, said that he was sure the meeting was obliged to Dr. Nisbet for having dealt with the various points brought forward during the discussion. The Paper was a most instructive one on a very important subject, and speaking for himself, he would say that he had learned that instead of Forestry coming to a man by nature as the work of his natural genius, much study and wide experience were necessary before he could deal successfully with its details. Another point which he will call attention to was, that in order to improve a landed estate, wherever it might be, first of all a good survey was necessary, and secondly, he supposed, minute attention to all the local conditions.

The Meeting then adjourned.

Paper 253.
No. 408.

THE BACTERIAL TREATMENT OF SEWAGE.

By HERBERT T. SCOBLE, Professional Associate.

Read at the Ordinary General Meeting of The Surveyors' Institution, *on Monday, February 12th*, 1900.

Thomas Miller Rickman (President) in the Chair.

In the early days of this Institution I find that the important question of sewage disposal occupied a larger share of the attention of Members than it does at present, that is, so far as I can judge. With the exception of a Paper on "Sewage Disposal for Country "Houses and Estates," read at a Junior Meeting and published in *Professional Notes*, Vol. IX., Part III., and a "Note" on the Septic Tank System, Part IV. of the same volume, the disposal of sewage has not been discussed for many years. There may be good and sufficient reasons for this apparent neglect, but it is in my opinion much to be regretted, as it seems to indicate that members no longer take a professional interest in the subject.

It will be manifestly impossible in the course of one evening to deal with all the discoveries that have been made in relation to the action of bacteria on sewage. I shall endeavour to explain the composition of sewage and the nature of bacteria, to show how sewage is

purified by them, and to give some general idea of the systems in use. Further, reference will be made to recent important experiments, and the various arrangements for automatic working will be considered. I propose to make a few remarks on the preparation of schemes, and to include a note on sampling and analysis. A word or two about the future of bacterial treatment will be given in conclusion.

Briefly speaking, bacterial treatment is a return to nature's method of sewage purification. The necessary microbes are always present, and the aim of the various systems is to afford the best possible conditions, consistent with reasonable expenditure, for the multiplication and action of these beneficent organisms. At the same time the works are under perfect control and are not liable to interference by excessive rainfall or frost.

It will be well, before detailing the various processes now in operation, to answer two questions, viz.: (1) What is sewage composed of? and (2) What are bacteria?

(1) As a typical case take a town having a water supply and "combined" sewers. The sewage is the total water supply after use (except that employed in gardening) together with a large amount of rain water, plus the foul matters taken up or washed down. The chief constituent is water, and the impurities include human fæces and urine, soap, discharges from sinks, sand, mud, horse-dung, and, in so many places, fibres from the woodblock pavements. If in addition there are manufactories that discharge their waste into the sewers, by the time it has received all its component parts the sewage will be indeed complex in character. Unless the local factories turn out a large quantity of acid waste the sewage will be alkaline; this is due in no

small measure to the soap it contains. Bacterial action is altogether stopped if the sewage is strongly acid. Practically all sewage, apart from manufacturers' refuse, is made up of various compounds of carbon, hydrogen, nitrogen, and oxygen. Other elements are present, but only in very small quantities. The different combinations of three or four of these elements are very numerous, and often extremely complicated.

Bacteria are minute forms of vegetable life allied to the algæ (sea and river weeds), and they can be roughly classified as (1) Parasitic (needing a living host), (2) Saprophytic (living on dead animal or vegetable matter), and (3) those which adapt themselves to circumstances and exist indifferently as parasites or saprophytes. They vary in size from $\frac{1}{15000}$th to $\frac{1}{25000}$th of an inch in diameter. Multiplication usually takes place by division. Each half grows to the size of the original bacterium and then splits into two. Occasionally reproduction is accomplished by spore formation. Given an adequate food supply and ideal conditions, a single bacterium will at the end of a week have a colony of descendants sufficient to occupy 50 luggage trains, each of 50 trucks capable of carrying 10 tons. As Cohn puts it: "Let "us assume that a microbe divides into two within an "hour, four in the second hour, then again into eight in "the third hour, and so on. The number of microbes "thus produced in 24 hours would exceed $16\frac{1}{2}$ millions; "in two days they would increase to 47 trillions; and "in a week the number expressing them would be made "up of 51 figures." Professor Boyce has found 750 million organisms in a cubic centimetre of fresh sewage.

Pasteur has demonstrated that all putrefaction, fermentation, decomposition, and decay of animal and vegetable tissues, whether dead or alive, are due to the

action of micro-organisms. The particular microbes we have to deal with in sewage disposal are of course the saprophytic and those of the third group acting as such. Bacteria are also distinguished according to the conditions under which they live, and may be either anaërobic (living without air, that is, without free oxygen) or aërobic (existing with free oxygen). Anaërobes and aërobes are each subdivided into obligate and facultative forms. An obligate anaërobe cannot live in the presence of free oxygen, but a facultative anaërobe is able to do so; similarly obligate aërobes need free oxygen, and facultative aërobes can exist in its absence. It will thus be seen that the line dividing them is no hard-and-fast one. All bacteria are destroyed if allowed to remain too long in contact with their own products. In the absence of water, or at least moisture, they are unable to multiply, and become dormant.

The work bacteria do in the purification of sewage is first to break down and then to oxidise the foul matters of which it is partly composed. The aim of the earlier bacterial systems was to subject the sewage immediately to aërobic action, but it is now held by biological authorities that for many substances a preliminary anaërobic treatment is necessary, and this is of especial value in dealing with vegetable compounds.

To effect thorough purification three separate processes are needed, viz.: (1) anaërobic; (2) partly anaërobic and partly aërobic; and (3) aërobic. As I have already pointed out, most of the impure matters consist of four elements. Bacteria are able apparently to abstract one of these elements from a compound for their own use. There are many species of micro-organisms that decompose the various substances, and the same compound may be broken up in different

ways. The following formulæ (Dr. Rideal) will give some idea of the changes which occur:—

$$\left.\begin{array}{l} 4 \text{ Albumen} \quad +14 \text{ Water} \\ 4\,C_8H_{13}N_2O_3 + 14\,H_2O \end{array}\right\} = \left\{\begin{array}{l} 4 \text{ Nitrogen} + 19 \text{ Methane} + 13 \text{ Carbon-dioxide} + 2 \text{ Hydrogen} \\ 4N_2 + 19\,CH_4 + 13\,CO_2 + 2\,H_2 \end{array}\right.$$

Or

$$\left.\begin{array}{l} 2 \text{ Albumen} \quad +26 \text{ Water} \\ 2\,C_8H_{13}N_2O_3 + 26\,H_2O \end{array}\right\} = \left\{\begin{array}{l} 4 \text{ Ammonia} + 16 \text{ Carbon-dioxide} + 33 \text{ Hydrogen} \\ 4\,NH_3 + 16\,CO_2 + 33\,H_2 \end{array}\right.$$

Nitrogen, methane (marsh gas), carbon-dioxide (carbonic acid gas), and hydrogen need no further change. The ammonia passes on and is converted into nitrous acid by the incorporation of oxygen from the air. The nitrous acid is by a similar action changed into nitric acid.

In addition to the elements already mentioned, some organic substances contain sulphur, and it is interesting to know how this is disposed of. Dr. Rideal, referring to the septic tank, says: "I have found that a mercaptan " (methyl hydro-sulphide) and other ethereal compounds " are undoubtedly present in small quantities. They are " very soluble, and fairly easily oxidised. Most of the " sulphur, however, enters into combination with the " iron present in the sewage, forming insoluble ferrous- " sulphide and giving a black colour to the suspended " matters."

Unfortunately the word "filter" has been applied to bacteria beds, and its use is so extended that it will have to pass. No mechanical action takes place, and the sewage is therefore not "filtered" in the true sense of the word. The material in the beds is there to afford a resting place for the bacteria, which would in its absence be carried away with the effluent.

The systems in use can be divided into two classes, the first of which has as its object the destruction of the impurities by aërobic organisms, while the second consists of a primary decomposition by anaërobes and a secondary purification by aërobic action. The ideal system would probably provide for three separate stages of treatment : (1) anaërobic, (2) anaërobic-aërobic, and (3) aërobic. The cost of installations would of course be greater, but as under existing systems an effluent of a sufficient degree of purity is readily procurable from any ordinary sewage, the advantages that might accrue would be more than overbalanced by the disadvantage of an increased expenditure.

In cases where the effluent will contribute to a water supply the adoption of this additional safeguard would seem to recommend itself. When manufacturing refuse in large quantities is discharged into the sewers extra provision may be required for the successful treatment of the mixed sewage. Pathogenic organisms or disease germs are, as far as our present knowledge goes, either destroyed or enfeebled in passing through an installation. The conditions are inimical to their growth or nourishment, and the bacteria they encounter are, according to bacteriologists, very hostile. Where the effluent is discharged into tidal waters an anaërobic process only is required.

Bacterial systems have this strong recommendation, that they produce no sludge. Where screens are used there is a certain amount of matter retained which must be disposed of, but screening is no novelty The residue from micro-organic treatment is inoffensive, and may be termed "burnt out ash." It accumulates very slowly, and its occasional removal is neither a source of great expense nor nuisance. This is, however, but a secondary

point as compared with the quality of the effluent produced. It is only by bacterial treatment that water can be effectively freed from its unnatural burden, sewage. The effluent from any well-considered and properly executed scheme is pure enough to be discharged into a stream, ditch, or pond without any risk whatever of subsequent putrefaction or injury to fish, flesh, or fowl.

The annual cost of up-keep is, with automatic gear, a nominal amount; where it is not provided, *constant* attendance is necessitated. The beds require raking over from time to time owing to the production of a surface film and the growth of weeds, which in warm weather is very rapid. Some forms of gear need a little oiling at intervals—a few minutes' attention once a week would suffice for this and the change of filters. Where screens are employed, the matter retained must be speedily taken away. I doubt whether it is worth while to include an item under a heading of "annual expen- "diture" for the removal of the burnt-out ash. The septic tank at Belle Isle, Exeter, has taken the sewage, *without screening*, from 1,500 people for over three and a half years; no mineral residue has yet been removed, and the quantity of such matter in the tank in no way interferes with its efficiency.

Experiments are being made in the separate purification of manufacturers' waste of vegetable and animal origin. The refuse from a brewery together with a little domestic sewage has been treated with some measure of success, and the discharge from a jam factory will, it is believed, yield good results. An installation is now being put down to treat the sewage from the kennels of a hunt—the solid excreta are reserved as far as possible and sold to leather manufacturers.

Many installations are at work or being constructed in connection with private houses, and where proper grease-traps are used to catch the grease from kitchens and sculleries success is assured.

Under the Dibdin or Sutton System the sewage first passes through a screen which retains solid fæces, string, rags, paper, &c. It then flows on to a coarse bed of coke breeze, ballast, or other similar material, the individual pieces of the same varying in size from half an inch upwards. The sewage is distributed by one or more channels over the top of the bed, which is filled to within three inches or so of its surface. It is collected on the floor of the bed by rows of agricultural drain pipes joining one main collector. After a contact of some definitely arranged duration, the discharge valve is raised, and the effluent is received by a second filter. This is made up of the same material as in the first bed, but the particles are much finer; dust, however, is rigidly excluded. Series of coarse and of fine beds are provided so that each may have a rest after discharging. Assuming an 8 hours' cycle and 2 hours' contact to have been settled on, the first bed will be filled (1 to 1½ hours), stand full (2 hours), empty (½ to 1 hour), stand empty (3½ to 4½ hours), and then be filled, &c., again. The sewage will run into the second filter while the first is standing full, and so on. It is an advantage to have a spare bed of each kind, so that a complete rest of some days may be given to all in turn. This prevents the beds from becoming "sewage-sick." These filters are very generally termed "aërobic beds," but as for many of the impurities in sewage an anaërobic process must be gone through before the aërobic bacteria can be of use, it is not unfair to assume that some anaërobic action takes place in at least the first or coarse bed. The fine bed is without

doubt mainly if not entirely aërobic. Screening is an unpleasant process, and the sewage, when being distributed over the coarse beds, is not free from smell. On leaving them the taint is slight, and the liquid is cloudy in appearance. The discharge from the fine beds is clear, and has but little, if any, odour. The materials employed in the construction of installations on the Dibdin System are of widely differing character. Beds may be made by digging pits in clay and burning the same for ballast, which is then screened and returned, but such works cannot be considered of a permanent nature. Again, I have seen beds, the walls of which were of clay, the floors of concrete rendered in cement, and the filtering material coke. In this case the sewage was distributed by rows of perforated cast-iron (rain-water) pipes, laid on the surface of the coke, and it was collected in the usual manner. To make certain that the works will last, the floors should be of concrete, and the walls of either concrete, brick, or stone in cement, all internal surfaces should be rendered, and coke or furnace clinker should be used in preference to ballast. Beds have been made of many different depths with satisfactory results. The amount of fall available usually fixes the depth that can be given to the beds, but where an unlimited fall is obtainable the time occupied in filling and discharging regulates this dimension. The filling of a 13-feet bed would occupy a considerable time when the flow was slight, and the sewage would therefore be kept in the bed too long. On the other hand, if the beds were very shallow, the cost of construction would be much increased.

Colonel Ducat's method of purifying sewage is to expose it to air as much as possible. Instead of building solid walls round the filtering material (vitrified

clinker ¼ to ½ inch in size) it is encased in agricultural drain pipes set in cement, the whole on a concrete floor. These pipes are tilted inwards at such an angle that the liquid cannot escape. At intervals layers of 3-inch pebbles extend right through the bed. During winter, owing to constant evaporation, the beds would freeze were they not enclosed and warmed by a supply of hot air.

The Scott-Moncrieff System provides separately for each of the three stages of purification. Anaërobic action takes place in a chamber containing successive strata of flint, coke, and gravel. The sewage passes up through a false bottom, rises between the flints, &c., and flows at its original level or thereabouts on to a thin layer of filtering material on a tray. It passes continuously through this, then falls a few inches and encounters other similar layers. The anaërobic action in the first chamber produces amongst other substances ammonia. This is converted by the bacteria in the upper filters to nitrous acid (nitrites). In the lower layers the aërobes present change the nitrous acid into nitric acid (nitrates). The results are very good, but the cost of constructing the trays must be taken into account when comparing with other systems.

The Septic Tank System is so called because the purification of sewage is begun by a process of putrefaction. The products of this first stage are passed on to fine filters where oxidation takes place. The installations on this system are uniform in character but differ widely in extent. A scheme has recently been submitted to deal with a flow of 4,000,000 gallons per diem, and at the same time the sewage from a country policeman's cottage is being treated most successfully. The works are executed usually in concrete, but brick and stone in cement, if rendered, answer

equally well. The tanks generally have arched roofs covered with soil and turf, but joists and concrete are sometimes used—manholes are built in to allow of inspection. The filtering material is broken furnace clinker (preferable) or coke from $\frac{1}{8}$ to $\frac{1}{2}$ inch in size. In a typical installation a grit chamber retains the road detritus. A storm overflow pipe from this chamber comes into operation when there is more than three times the normal dry weather flow. The sewage is conveyed by special inlet pipes to some 18 inches or so below the water level of the tank. The floor of the tank falls slightly towards the further end, and at the lowest point the burnt-out ash drops through a slot into a pipe embedded in the concrete. On removing a valve the residue is forced out by the pressure of the water above into a sump-hole at the side. The tank effluent passes out through a narrow longitudinal slot on the underside of a transverse pipe which communicates with the tank effluent channel. The slotted pipe is below the water level, and the walls of the channel are carried up to form a trap. A main distributor then conducts the tank effluent to the automatic gear, and rows of half-channel stoneware pipes distribute it over the filters. Agricultural and stoneware drain pipes collect the effluent on the floor of the filter and lead back to the gear through which the final discharge is made. Under this system no screening is done. All the solids, other than road grit, enter the tank, and are there liquefied or turned into gases by anaërobic action. There is therefore no smell from untreated sewage. The tank effluent is slightly opalescent in appearance, and some of the gases it contains escape, giving an ammoniacal odour, which diffuses very rapidly and is imperceptible at a few yards' distance.

The final effluent is bright and without smell. In the tank a thick scum of floating solids and colonies of bacteria is formed on the surface of the water. The heavier particles encounter swarms of microbes on the floor of the tank, whence they rise to the surface, buoyed up by the gases set free, only to fall when these break away. A similar recurrent rise and fall may be observed when a "lemon-squash" contains a pip—the only difference is, that in this case the gas comes from the liquid, whereas in the tank it is produced from the substance of the object moved. As long as there is any organic matter left bacterial action will continue, either in the body of the tank or in the surface scum. The inodorous gases from the tank give a great deal of heat when burnt, and although at present they have only been employed to light incandescent burners, it may be possible to devise some way of using them so as to provide power for pumping when this is required. The tank holds from 18 to 24 hours' flow of sewage, and any particular discharge of foul matter soon spreads. There is a reserve capacity (the difference between high and low water level) to take the first rush of storm water with its accompanying scourings. The fall desirable for the Septic Tank System is four to five feet, but less will suffice in case of need.

According to Dr. Garfield, coal makes a most excellent filtering material. The beds are arranged so that the larger particles are at the bottom, those of medium size next, and the fine ones on the surface.

The chief feature of the Polarite Biological Sprinker System is the method of distributing the sewage over the beds. The description of the Candy-Caink gear will show how this is done. The sewage is first treated in a small detritus chamber designed to hold the flow of half an hour. A screen at the further end prevents the solids

from passing on, and it is claimed that they are broken up by bacterial action. Where sufficient fall is not available to allow of two filtrations, a "sludge-digesting "bed" is employed; this is very similar to the first chamber in the Scott-Moncrieff System. The filters are made up of layers of "polarite" and gravel.

Variations of the Dibdin and Septic Tank Systems have from time to time been proposed, and may in some parts be seen at work. Some time ago the author had a system described to him which appeared to imitate both the Septic and Scott-Moncrieff Systems in the preliminary stages, and the sewage afterwards passed through four shallow filters of small coal in succession. The only objection to such amplification is on the financial side; this, although a one-sided opposition, will be acknowledged to carry great weight.

For some time past the Leeds City Council has been endeavouring by means of practical tests on a working scale to ascertain whether bacterial treatment would effectively and economically purify the local sewage. The sewage contains a very large amount of iron, and the surfaces of the filters are at times completely coated with it. A large quantity of dye liquor also finds its way into the sewers. Several systems are being tried, and as recently as September last it was decided to extend the scope of the experiments. It is too early as yet to arrive at any definite conclusion, but the results so far have been very satisfactory.

An exhaustive report by Dr. Clowes, chemist, and Dr. Houston, bacteriologist, on the bacterial treatment at Barking and Crossness (the outfalls for the sewage of London north and south of the Thames respectively), was published last October by the London County Council. A single and also a double filtration were em-

ployed, the coke used was "walnut" size, and depths varying from four to thirteen feet were tried. The thickness of the filtering material made but little difference to the effluent. The working capacity was considerably reduced (from one-half to one-third of the gross capacity of the beds), and this "appears to be mainly due "to the fragments of straw and chaff apparently derived "from horse-dung and to woody fibre derived from the "wear of the wood pavement." Want of time forbids a more detailed reference, but according to Dr. Clowes the points of advantage of bacterial over chemical treatment are: (1) It requires no chemicals. (2) It produces no offensive sludge, but only a deposit of sand or vegetable tissue, which is free from odour. (3) It removes the whole of the suspended matter, instead of only about 80 per cent. thereof. (4) It effects the removal of 51·3 per cent. of the dissolved oxidisable and putrescible matter, as compared with only 17 per cent. removed by chemical treatment. (5) The resultant liquid or effluent is entirely free from objectionable smell, and does not become foul when it is kept; it further maintains the life of fish.

The experts appointed by the Manchester Corporation say in their Report, issued last November: "To this "end" [the possibility of devising a more economical method] "we felt that it was of the highest importance "to carry out a searching experimental investigation of "our own as to how the bacteriological processes can be "most advantageously applied to a sewage possessing the "special character of that of Manchester. Thus some of "the more urgent points demanding elucidation were the "following: (1) To determine whether the trade refuse "in Manchester sewage seriously impaired the efficiency "of the bacteriological treatment. (2) To determine

" whether a portion, at any rate of the sludge, can " be destroyed by bacterial agency. (3) To determine " whether the addition of chemicals to the sewage before " bacteriological treatment can be dispensed with. (4) To " determine whether the aërobic process (decomposition of " organic matter by bacteria in the presence of air) or a " combination of anaërobic (similar decomposition without " air) and aërobic processes is the more advantageous."

It would occupy too long to follow in any detail the actual experiments that were conducted to satisfy the experts on the points so clearly raised in the preliminary statement. The conclusions they agree on may be briefly summed up as follows. The Bacterial System is the system best adapted for the purification of the sewage of Manchester. The inquiry has shown that each bed may safely receive four fillings per diem provided that the sewage has undergone septic preparation in tanks, and that the bed is accorded one day's rest in every week. The experiments show that the bacterial system of treatment is efficacious at all seasons of the year.

The recommendations are to the effect that the sewage be screened and then passed through the present open tanks. These tanks should be provided with submerged walls and floating scum-boards, so as to retard the flow of the mineral and organic matters in suspension. That the effluent from the open tanks be passed through the double contact beds. Particulars as to construction of works then follow. The last paragraph is: " Finally, we may state our confident opinion, that " with the system of bacteriological treatment of the " sewage of Manchester set forth above, an effluent will " be produced which will not only conform with the " Mersey and Irwell standard, but which will also

" materially improve the condition of the Ship Canal. " Furthermore, as this system does away entirely with " the use of chemicals, and at the same time, to a very " large extent, reduces the volume of the sludge to be " dealt with, it is obvious that much of the present expense " will be saved by its adoption, and this saving may be " taken as a material set-off against the cost of the con- " struction of the proposed works."

It has been pointed out that each bed must have a period of rest after discharging before it is again filled. The work to be done consists of filling the first bed, diverting the flow when it is full to the next in the series, discharging it after the arranged time of contact, providing a period of rest and charging the first filter again when the last has been filled, thereby establishing a complete cycle. In addition, provision should be made for cutting out any filter for a rest of a week or so. With a continual flow of sewage constant attendance must be provided. In addition to the expense thereby incurred the efficiency of the works will, to a certain extent, depend on the unremitting attention of the men whose duty it is to look after the filters, at any hour of the day or night and in all weathers.

With automatic working it will be possible to deal with the sewage of a district by separate installations at different sites, without adding in any great degree to the cost. Extensive sewering and pumping will thereby often be avoided. The advantage of employing automatic alternating gear was first recognised in connection with the Septic Tank System. Where proper gear is used the filters cannot run over, be insufficiently filled, emptied too soon, nor allowed too long a period of contact, &c. The success attained by the gear naturally led to the manufacture of further apparatus, and I propose to refer to several types of gear in use.

The original automatic alternating gear of the Septic Tank System is still at work, but the forms now generally adopted occupy less space, and are designed to meet varying requirements. Thus one form provides for a timed discharge, that is, the interval between the filling and emptying of the bed is always the same, or, in other words, is not affected by the rate of flow. In another type of gear an overflow from the second bed, when that is full, fills a bucket, which then drops and raises the discharge valve of the first bed, and so on, each bed in a cycle of three or four being emptied as soon as the bed next in order has been filled. Each set of four beds has its own gear, is separately supplied with tank effluent, and works independently. A further type of gear, designed for small installations, say for an asylum or country house, has for its object the control of the flow on to the filters. Were the flow not regulated the beds would receive the merest trickle at night, and in the morning an altogether excessive amount. As this might impair their efficiency the flow is stored in the tank until just enough has accumulated to fill a bed. With this gear three beds are generally provided; any two work alternately while the third is resting.

Adam's syphonic apparatus consists of an air-controlled supply and a timed syphonic discharge. When a bed is full the supply is cut off by an air lock, in which pressure is automatically brought about. The discharge of the bed to which the apparatus is connected releases the pressure and allows the bed to be refilled. The discharge syphons deliver the contents of the coarse bed on to the fine bed, and a similar syphon finally discharges the effluent. The beds are dependent one upon the other for their supply and discharge when the withdrawing syphons are connected with other beds. A revolving

barrel turned by a float supplies alternately to right and left when two beds only are used.

Ridgway's automatic distributor is operated by the rise and fall of a float to which a pawl is attached. The ratchet wheel moved by the pawl is fixed on the end of a long rod. This rod carries a number of cogs, each of which opens one of a row of valves. The sewage is thus delivered through the valves in turn and is conducted by special channels to the filters. I am not aware if any further apparatus is made to accompany the above; if the beds are worked continuously none is needed, but if intermittently some means of discharge must be provided.

The Candy-Caink distributor consists of two arms, each perforated on one side and connected with a central bucket, which in turn communicates with and is fed from a trough. By another arrangement it is supplied direct from a tank which "ponds" the flow. The distributor revolves as the sewage emerges from the perforations, and the liquid is thus sprinkled evenly over the bed. The normal flow of four minutes is dealt with at once and causes the sprinkler to revolve for one minute.

The first point in connection perhaps with any and every scheme is, What will it cost? I do not propose to enter upon the question of cost at any length or to compare the various systems with each other in this respect. Local facilities both as regards material and labour are of vital importance, and the fall obtainable will always be one of the chief considerations. In every case the aim of the surveyor will be to avoid pumping if by any means he can do so. This may at times be accomplished by reducing the gradient of the sewer for some distance from the outfall. The levels of the proposed site or sites should be accurately taken and the invert of the sewer

marked on the plan. The fall that can be allowed will then be ascertained, but it must be borne in mind that the effluent will have to pass over land whenever a Local Government Board loan is wanted. Existing outfall works should be inspected, as it may be possible to adapt them.

When the sewage is purely domestic no difficulty will be experienced in effectually purifying it by bacterial treatment. If fibre from wood-pavements has to be dealt with it will require special provision, as it is essential for its speedy dissolution that it be subjected to a definite anaërobic process. Discharges from breweries, galvanizing works, and fellmongers' yards, to mention three only of the many industries whose waste products are encountered in the sewers, must, if in any quantity, be most carefully considered. It will be well to secure the fullest information obtainable as to quantity and time of the discharges, and to know if the same take place at regular intervals.

The normal dry-weather flow should be ascertained by gauging, and it is best to do this over as long a period as possible. Readings should be taken each hour for at least twenty-four hours. It is a good plan to average the results from several days, as instances have been known where the data furnished as regards flow bore no relation to the actual amount of sewage delivered at the works.

In England the Local Government Board's regulations are so severe in connection with bacterial systems that the cost is much enhanced. This applies to all schemes where loans are needed to carry out the work, and as it is practically impossible to pay for the construction out of revenue, many local authorities are waiting for the Report of the Royal Commission. Why these regulations

should be insisted on it is not easy to say. Scotland and Ireland have no such hampering restrictions, and in England, where installations can be put down out of revenue, some of the supposed necessary requirements need not be complied with. The conditions are:—

(1) Each set of filters (*i.e.* both coarse and fine) must be of sufficient capacity to contain the normal dry-weather flow for twenty-four hours. Coarse grain beds can hold 25 per cent. sewage and fine beds $33\frac{1}{3}$ per cent. This means, taking an eight-hour cycle, that the beds must be large enough to deal with three times the dry-weather flow, *i.e.* one volume normal, two volumes storm water.

(2) Land has to be obtained at the rate of one acre per 1,000 population to take the effluent.

(3) Storm water filters of some coarse material, such as clinker, burnt ballast, or gravel, must be provided in addition to the above to treat a further quantity of storm water equal to three times the dry-weather flow. Instead of filters a special area of land can be set apart to receive storm water.

The policy of providing more than sufficient filtering accommodation for sewage has its good points, but it may be questioned whether it is necessary to do so on so liberal a scale. The insistance on "final land treatment" may be considered a mistake, as where proper filtering material is used no further purification is needed. Only in very exceptional cases, where it is practically impossible to obtain the requisite area of land, is this condition open to modification. Final land treatment entails additional expense for the purchase of the land, and also increases the difficulty of securing suitable sites for installations, as it is only after the sewage has passed through the filters and thereby fallen

some four to eight feet that the land comes into use. Pumping machinery may even be required to raise the effluent so as to pass it over the land.

A reference to Hampton may be of interest. Here the Urban District Council, in order to more than satisfy the Thames Conservancy, decided to pass the sewage through *three* sets of filters. An unusually pure effluent is obtained. But the Local Government Board granted a loan; it must therefore pass over land and has to be pumped up for this purpose. The effluent on leaving the land contains more than twice the amount of impurities that were present in it when discharged from the filters.

The consideration of the state of affairs at Hampton brings me to the next point, viz. the destination of the effluent. It is always possible by increasing the number of filters to further purify the effluent until a good potable water is obtained. This practically complete purification would very largely add to the cost, and I am afraid there would be a sentimental objection to drinking "sewage water." It is essential that the effluent should not putresce even when incubated. I have already referred to the treatment proposed where a water supply is in question.

When the sewage is very foul or the effluent will become a part source of a water supply, it may be advisable to have a chemical and bacteriological examination made. This is more particularly needed when it is feared that chemical wastes will interfere with bacterial action. The samples should always be averaged, and it is important to bear in mind that the original samples, of which the average is made up must be proportionate to the flow. The samples should be collected after a few dry days, if possible, and they ought to be labelled with name of place, date, and time. Data as to the rainfall

of the district for some time before, and the water supply per head of population should be obtained and given to the analyst. Trade discharges if voluminous should be independently sampled. If samples are taken from installations at work for the purpose of ascertaining the degree of purification effected, great care must be exercised to obtain proper figures, and sterilised bottles must be used. The rate of flow must be frequently gauged, and the time calculated that will elapse before the successive stages are reached. That is to say, if in a septic tank installation the flow is sufficient to fill the tank once in eighteen hours, the tank effluent must be sampled eighteen hours after samples of the sewage are taken—samples of the final effluent must be obtained from the filter that receives the tank effluent already sampled.

Analysis should be left to chemists and bacteriologists, as it is essentially specialists' work. It is useless for anyone to attempt delicate analyses with but imperfect apparatus and a limited experience of the work.

The future of bacterial treatment and the future of sewage disposal are, I believe, one and the same thing. A Royal Commission is investigating the subject at the present moment, and it is hoped the Report, when it appears, will definitely state that, subject to certain conditions as to dimensions of tanks, beds, &c., bacterial systems may be adopted without subsequent land treatment. The Report of the invaluable Manchester experiments, the results of bacterial treatment at Barking and Crossness, and the undoubted success of the installations on various systems now at work throughout the United Kingdom and abroad, warrant the inference that bacterial treatment is universally applicable. Not only is the cost less, but the results are far superior to any obtained by the use of chemicals, and the sludge

difficulty does not arise. Further, as the nitrates derived from the nitrogenous substances are in such form and in such quantity as to be readily assimilated by plant life, it may be that in time to come this manurial value will be utilised by extensive irrigation. At any rate it will not be necessary to flood the land at unsuitable seasons, nor will there be any risk of making it sewage-sick.

It is, of course, impossible to say anything definite as to the continuance of any one system in use at present, as extended research may enable us to improve on existing methods. Experience and the evidence of bacteriologists point more and more clearly to the fact that a preliminary process of anaërobic action is essential, and that in order to obtain the best results the two subsequent stages of purification should proceed independently. By a modification of its regulations the Local Government Board could sanction two beds (successive), each of rather less than half the capacity of those now used, to deal with the products of anaërobic activity. The cost would not be so much as at present (with land), and the result would leave nothing to be desired. It may be taken as certain that automatic working will be a *sine qua non.*

Different systems of sewage disposal have come into prominence and again receded from our view because the working of Nature, the one abiding condition, has been disregarded. Sewage farms had too much work given them to do, and as an inevitable result were incapacited from doing it properly by reason of "sewage sickness." Chemical precipitation, tried to stop putrefaction or decay, was followed by "secondary decomposition" in the effluent, and brought us face to face with a further difficulty—"sludge." Bacterial treatment is an application of the

methods which observers have seen Nature make use of and I trust that in years to come it will not be said that those who advocated its adoption were unduly optimistic, but that they advised the use of the only efficient and economical process of sewage disposal.

Mr. Willis Bund (Associate) said he had great pleasure in proposing a vote of thanks to the author of the Paper, which would form a very valuable contribution to the *Transactions* of The Institution. The great difficulty in the present day was to carry out any sewage scheme under the existing regulations of the Local Government Board. In a small town or district where a rate of a penny in the pound would only produce some £20 a year, how was it possible to fulfil the requirements of the Local Government Board or to establish any efficient system without wasting money? He had hoped to hear from the author of the Paper that under a bacterial system of treatment there had been found some royal road towards dealing with such unfortunately situated districts; but he must confess his disappointment at failing to find in the Paper any practical solution of the difficulty.

There were many districts with which he was well acquainted (and in the control of which he had some voice) where manufactures were carried on, with the refuse from which he did not think Mr. Scoble's system would be able to deal. It was admirably adapted for the treatment of what might be called pure sewage; but where it was necessary to deal with the refuse of several widely differing manufacturing processes, it became a very serious question whether a bacterial system would come any nearer solving the difficulty than had

the hundred and one schemes of which so much had been heard before.

He was particularly interested in knowing how the system would deal with acid waste. In the valley of the Stour, which separated Staffordshire from Worcestershire, there were several riverside places where a good deal of galvanizing was carried on, and a great deal of acid was used. Under the Rivers Pollution Act the waste from the works must go into the sewers, but the local authorities objected that this course prevented any proper treatment of the sewage, and rendered it quite unfit for application to the land, and indeed dangerous to the sewers. He hoped to have been told (though he confessed he might not have believed it) that the particular treatment dealt with by Mr. Scoble in his Paper would have got over this difficulty of dealing with the acids discharged from so many factories.

It seemed to him that if the treatment were to be applied to localities where there was anything more than mere ordinary sewage, it would be necessary to adopt some dual plan whereby the bacteria might do their beneficent work side by side with some other system designed to neutralise the injurious effects of the chemical waste products. Was it possible to devise any general method applicable to all places? Would not the chemical constituents in some sewage entirely neutralise the action of the bacteria on whose co-operation the system was based?

The Act of 1876 precluded, he thought, the adoption of any general system of sewage treatment, by authorising the waste from manufactures being turned into the sewer, and the Local Government Board laid down one hard-and-fast rule governing such matters, which could hardly be expected to be efficient under the widely varying conditions.

He should like to hear Mr. Scoble's views on another point. The Local Government Board insisted (and very properly so) on having various deodorants put into the sewers during the hot summer weather. What effect would that have on the bacterial action on which Mr. Scoble's system relied? Very considerable quantities were employed in some places, and if, for instance, a heavy thunderstorm occurred and suddenly washed down a very large quantity of such chemicals, what effect would it have on the sewage tanks? Would powerful chemicals, such as chloride of lime, freely used in the sewers, affect the working of the system, which, if it was to be of any permanent value, must go on efficiently all the year through, and not break down in consequence of either hot or cold weather. On this point he had doubts, which he would gladly hear were unfounded.

He ventured to differ from the author's views on one other point. It was laid down in the Paper that "where "the effluent is discharged into tidal waters an anaërobic "process only is required." That might be so near the sea, where the water was salt, or nearly so, but not, he thought, at the head of the tideway when the sewage discharged into water which was not even brackish. He had in his mind the case of Gloucester, where there was a heavy discharge of sewage into the river, which was worked forwards and backwards with the tide in a way which was anything but desirable. The provisions of the Rivers Pollution Act were certainly fulfilled, but that they were not all-sufficient was proved by the fact that in the summer no salmon got past the Gloucester outfall.

On another point he should much like to have information. Would the bacterial system answer in the

case, so difficult to deal with and so often recurring, of say half a dozen cottages isolated from other buildings?

It would be hopeless to expect that ratepayers would ever consent to pay for any grand engineering scheme for the drainage of two or three farmhouses or cottages. Although the Local Government Board were urging the district councils to adopt such measures, they really amounted to a simple waste of the ratepayers' money. The rates put on a district to pay for a sewage scheme often constituted a gross injustice to the district. It was the law, and the district authorities were bound to carry it out, but it was one of the most oppressive enactments of recent days.

If the bacterial system would meet such difficulties of dealing with small drainage areas a great benefit would be conferred on many rural districts. But was it certain that it would do so? Had the experiments gone far enough to justify a rural district council, for instance, in adopting the system if it involved another penny on the rates, or was there a possibility, however remote, that a year after the tanks had been put down they would be found to be a failure?

He observed that Mr. Scoble had spoken of grease-traps; but everyone knew how difficult it was in the first place to get proper grease-traps put down, and, afterwards, how still more difficult it was to insure their being properly attended to.

He believed that in some places these experiments had worked well, but he would like to hear whether the bacterial treatment had been anywhere adopted on a large scale, and had stood the test of dealing with mixed sewage in large quantities, not as an experiment, but as a practical system.

He much feared that if the system were exposed to

the ordinary rough work to which any system of sewage was liable a great many conditions would be met with, any one of which might cause it to break down. He should therefore hesitate before forcing it upon any local body, until experience had proved it successful under all possible strains.

He remembered that at Worcester, when he was a young man, sewage works were put down at a cost of some £60,000 to drain the city *into* the river. It was only a few years ago that the cost of the work had been paid off, and now the Local Government Board were pressing the adoption of a scheme of sewage works at a cost of about £100,000 to keep the sewage *out* of the river. The Local Government Board plan might be perfectly right, but if the adoption of the new system meant the spending of a large sum of the ratepayers' money to put down tanks, and thirty years later the taking of them up again to try something else, it seemed to him that very careful consideration was required before any such system could be adopted as a permanent solution of the difficulty.

Mr. H. H. Collins (Fellow) said he felt at some disadvantage in following a speaker like Mr. Willis Bund, who was so intimately acquainted with the Rivers Pollution Act, and who had taken so large an interest in the question. While congratulating Mr. Scoble on the lucid way in which he had explained the various systems, he thought the Paper would have been more easily comprehensible if it had been accompanied by some diagrams showing at a glance the working of the methods advocated by the author.

The matter had been occupying the attention of local authorities and of experimentalists for a very consider-

able number of years, and he himself was speaking both as surveyor and architect, anxious to know of some simple and inexpensive process which could be easily adopted in practice.

He remembered this subject being discussed thirty or forty years ago at the Social Science Congress. He could recall many hopeful schemes which had resulted simply in the ruin of their promoters and projectors, and he recollected Dr. Carpenter's enthusiastic advocacy of a plan which Mr. Scoble now condemned. As the last speaker had said, before any large expenditure on sewage works of any kind was sanctioned very careful investigation was necessary. The Sanitary Institute had expended a considerable amount of money and time in experimenting in this direction, but were still unable to come to any definite conclusion. He hoped that the system would prove to be successful; but it was going back to the old cesspool arrangement, which had been in existence from the earliest times, and it seemed, in fact, to be the simplest method of adopting the principles of nature itself. But he thought that at least some "honest doubt" might be acknowledged until the success of this system was clearly demonstrated. He did not wish to speak pessimistically, but his experience of the subject, extending over forty years, had acquainted him with the inception of many and various processes which had all claimed to be ideal, but of which nothing but the memory now remained. He hoped sincerely that the scheme which Mr. Scoble suggested might prove successful in practice, but it would be less than candid if he did not admit that he had his doubts. He was at present trying the system for a client, but he had not yet sufficient experience to say for certain that it would answer. He could only hope that it would, and that

Mr. Scoble might prove to be right in the conclusions at which he had arrived.

Personally he could not challenge the author's chemical data. He had no doubt they were absolutely correct; but, after all, this was not altogether a chemical or an agricultural question, but one which must be governed, as Mr. Willis Bund had said, by considerations of the judicious expenditure of the ratepayers' money.

Economists had argued that it was absolute waste to do what Mr. Scoble had suggested, and that sewage should be utilised to produce food; but, speaking as a surveyor with many years' experience in parochial and local affairs, he could only say that if sewage could only be got rid of without sludge and its concomitant evils, he did not care whether the cost was much or little, as in any such case it must be both sanitary and economical.

He remembered seeing twenty years ago the enormous works which were planned to deal with the sewage of Manchester. All the solids were to be made into bricks or cement or even he believed into scents, but experience had taught him that such hopes were not always fulfilled.

Mr. A. M. Fowler (Fellow) said he spoke as an engineer very deeply interested in this subject, having been connected for the last 34 years with many systems dealing with the sewage of large towns.

There were, he supposed, twenty processes or more which would clarify sewage. There was no difficulty in the matter at all until one came to the question of cost. No doubt some of the members present would recollect the A. B. C. process, which was first introduced when he was borough engineer of Leeds in 1866. He well remembered the confidence with which it was stated

that the nut had at last been cracked and the whole difficulty solved. The shares in the enterprise went up buoyantly on the Stock Exchange, and fortunes were made and lost in dealing with them; but it was found impossible to carry out the promise which had so confidently been made, or to provide at a reasonable cost the chemicals necessary to keep up the clarification of the sewage.

Referring to fish, he believed Prussian carp would live in almost any clarified sewage, and he had known fish to live in the effluent of the A. B. C. process for months, the effluent being changed once every two days.

The Corporation of Leeds were experimenting to-day as in 1866. They had tried many schemes, and had employed experts to carefully test the products and to analyse the effluent; but they had been compelled to abandon them all.

Many years ago he had laid down a sewage scheme for Salford, but he did not finish the outfall works before leaving for the north. A great many experiments had been made, but they had gone back to the simple process of lime treatment.

He was sure that the bacterial process was worth very careful consideration. It was being tried now in Leeds, and, as the author of the Paper said, no conclusion had yet been come to after a whole year's trial. He should have thought that a year was sufficient to test any process. He imagined that the conditions prevalent in different towns would have a great effect in determining the success or failure of this or any other scheme. Perhaps in Exeter Mr. Scoble's plan might do well and produce a good effluent; but in many towns detritus, dye-wash, hair from different works and refuse from breweries must be dealt with, and as a previous speaker

had said, it was impossible to specify any universal system suitable for use throughout England.

He had lately dealt with the Stockport sewage by a downward intermittent filtration process through land, so designed as to be really a bacteriological process. The resulting effluent was pure; but all the solids had first to be removed by passing the sewage through tanks. He could not believe that the filter bed would not lose a certain amount of its capacity by sewage continuously passing through it. A great deal of the scum would rest upon the top of the filter bed, and must diminish its capacity after it had been working a certain time.

The united labours and experiments of chemists and engineers, extending over some fifty-five years, had simply resulted in showing that each town must be dealt with according to the conditions prevailing, and that no universally suitable scheme had so far been devised.

Mr. J. Nixon Horsfield (Fellow), speaking as an architect and surveyor practising in a Thames-side borough, said he felt a very considerable interest in the subject with which Mr. Scoble had so ably dealt in his Paper. In his own town the chemical process which Mr. Fowler alluded to as the A. B. C. process had been adopted some years and had turned out to be expensive and more or less unsuccessful. It had been found impossible to maintain an effluent which would satisfy the Thames Conservators, who were sometimes thought to be too exacting in their standard. With this he did not agree, for he felt that the improved state of the river fully testified to the excellent work which had been done in the direction of securing the preservation of its purity.

He had taken a special interest in the biological treatment of sewage as dealt with by Mr. Scoble, and had had the opportunity of applying it to small property in the case of some cottages on the slope of a hill, built just about the time that Mr. Scott-Moncrieff had been experimenting on his own particular lines. He had made a cesspool or septic tank for the cottages (eight in number) with several filters below, as the slope of the land rendered it possible to do, and during the three years that the dwellings had been occupied he had not had a single complaint of smell or inconvenience of any sort. Given a site on the side of a hill and other suitable conditions, it was easy to make a biological scheme successfull. But on flat land it might not answer at all on a small scale.

He had seen at Exeter and elsewhere the working of septic tanks and filter beds such as the author mentioned, and he must admit that a very fine effluent indeed resulted. But if it were possible to get an equally good effluent free from smell without covering in the septic tanks it would of course be a great saving of cost. Whether that were practicable or not he did not know ; but in a case of converting present precipitation tanks into septic tanks, it would save a considerable amount of expense if they would act equally well without being covered. Certain eminent engineers maintained that they would, but he should like to hear the view of the author of the Paper on that point.

It had been pointed out that the flow of sewage varied from hour to hour throughout the day: for instance, at noon the normal flow was about six times the quantity which passed through at midnight. That was one of the difficulties which had to be considered in all bacterial schemes the success of which depended upon the

period of rest between the fillings. In a Dibdin's diagram he had examined, showing the cycle of work during normal flow, there was allowed at certain periods of the day merely half an hour, which he was assured was sufficient, and at other parts of the day, when there was a much smaller flow, four or five hours. If half an hour only were necessary, it must be very extravagant to have so many tanks and to leave them empty for a period of three or four hours.

Under the system as carried out at Exeter there was certainly no offensive smell. He had taken the opportunity of inquiring of several residents in the neighbourhood of the works, but without hearing any complaints on that score.

It seemed to him obvious that if any system were to be generally applicable, to be economical it must be worked by some automatic gear; and this, like all mechanical arrangements, would no doubt be perfected as time went on. In starting any new installation, it would probably be better to have workmen to control the action and not to go to the expense of automatic gear until it had been considerably improved.

The speaker who moved the vote of thanks did not, he noticed, agree with the main recommendations of the Manchester Report. As far as the Ship Canal was concerned, there was certainly room for improvement in the state of the water. He was there some two years ago, and could only suppose the state of the water was due to the refuse from various manufactures, such as black dyeing, bleaching, and gas-making, carried on in the neighbourhood. But these had all been experimented upon by the three experts, Messrs. Baldwin Latham, Percy F. Frankland, and W. H. Perkin, who exhaustively reported on the Manchester sewage system, and the con-

clusion which they came to was "that any doubts "which may have arisen in the first instance as to its "suitability owing to the presence in Manchester sewage "of much manufacturing refuse, have through the con- "vincing results of our experimental inquiry been "entirely banished. The results obtained have alto- "gether exceeded our expectations as to the possibility "of purifying a manufacturing sewage, inasmuch as it "was previously a matter of common belief that in such "a liquid only a most insignificant amount of nitrifica- "tion could be induced." He feared this was a little optimistic, but in the septic tanks the refuse from tar products, &c., was considerably diluted before it entered the roughing beds, and was therefore not so difficult to deal with.

Mr. E. W. Hudson (Fellow) said it seemed to him that the Paper was somewhat lacking, if he might venture to say so, in information on the points which concerned Londoners most closely.

He would have been glad if it were possible to get information with regard to the nature and the success of the system now adopted at Crossness and Barking outfall works. Many different processes had been tried by the late Metropolitan Board of Works and, later still, by the London County Council, for the treatment of sewage before discharging it into the Thames.

He remembered some 35 years ago that at a point on the River Lea the sewage was dealt with *pro tem*, by what was then called the chemical treatment, which simply meant the addition of lime, and the effluent was allowed to find its way into the river. Outfall works were afterwards completed, with an arrangement for letting out the sewage from reservoirs at certain times

of the tide. These reservoirs were increased some years later at a cost of hundreds of thousands of pounds, and then came the system of sludge beds and sludge ships to take the sewage out to sea. It was subsequently, he believed, treated by electricty. He would much like to hear if that failed, and what the present treatment at Barking and Crossness might be.

Reference had been made to the perhaps somewhat exacting requirements of the Thames Conservators, before the effluent was allowed to pass into the river. But it must not be forgotten that the Conservators were custodians of the source from which London was chiefly supplied with water; and although he was glad to hear that, under the system advocated, the effluent was beautifully clear, yet he could not shut his eyes to the possibility of danger from requiring it to pass over land and thereby becoming infected, especially with the recent example of the town of Maidstone fresh in memory.

Reference had been made to Croydon, which was not, he believed, alone in possessing the advantage (or disadvantage) of having a separate system—one series of sewers for its sewage and another for the surface water. He should like to know what influence such a division of the system would have on a bacterial process—whether it was an advantage or a disadvantage to combine the surface water with the sewage.

The Vote of Thanks having been put and carried unanimously, the discussion was, on the motion of Mr. Howard Martin, adjourned to the Meeting of February 26th.

No. 409.

AT

THE ORDINARY GENERAL MEETING,

Held on Monday, February 26th, 1900.

THOMAS MILLER RICKMAN (President) in the Chair.

The discussion was resumed on the Paper read at the Meeting of February 12th, 1900, by Mr. Herbert T. Scoble on "The Bacterial Treatment of Sewage."

The President, before calling upon Mr. Howard Martin to resume the discussion, requested the Secretary to read the following communications from gentlemen who were unable to be present at the Meeting.

From Professor HENRY ROBINSON (Fellow).

I have read the Paper with much interest, as it is a valuable contribution to the literature of the subject of the bacterial treatment of sewage. In 1885 I read a Paper before The Institution on "Some Recent Phases of "the Sewage Question," in which I referred to Warington's observations on the changes produced when organic matters come in contact with bacteria. Since that time the investigations of the Massachusetts State Board of Health have been known, and an impetus has been given to the system of utilising bacteria for sewage purification, which is evidenced by the references in the Paper to the names of the many who have identified themselves with the subject. The data now available may be accepted as sufficient to dispose, once and for all, of the objections to bacterial systems which have, even recently, been put forward by some who still cling to employing only land, and show a disinclination to avail themselves of the means of producing the first putrefactive change in bacterial beds, by which the fluid is got into a far better condition for ultilisation by crop than when it is applied to them in a crude state.

Care should be taken to avoid adopting, or trying to enforce, any particular combination of plant or apparatus under all circumstances.

The arrangement of works would vary considerably with the levels of land, situation of outfall, and other considerations. In three cases in which I am engaged at the present time different arrangements are necessary. In one case the sewage is conveyed to chambers in which it will have anaërobic treatment (road detritus, &c., having of course been previously removed). The fluid from these chambers passes to a distributing apparatus designed to discharge the fluid into four channels leading to four aërobic beds on to which it passes in rotation. The apparatus consists of a small water wheel (driven by the flow of sewage) discharging into a revolving dish or vessel supported on a horizontal ball bearing. The fluid passes out of a slot at the side of the dish into the four channels underneath in rotation as the slot comes over each, a complete cycle occupying from 2½ to 3 hours.

In another case the levels of the land at the outfall admit of a different treatment, and the sewage passes over aërobic beds, the flow to which is automatically regulated to produce a definite cycle. The fluid from the beds can either be passed on to land for agricultural purposes, or, when it is not capable of being advantageously so applied, it is further purified on a second aërobic bed.

From Dr. Samuel Rideal.

I regret that I shall be unable to be present at the discussion on Mr. H. T. Scoble's Paper this evening. I fully intended to attend, but my doctor does not allow me to go out. I have read the Paper with a good deal of interest, and it seems to me to put the matter together in a very convenient form. I am afraid that I cannot discuss the Paper very well in a letter, but should like to take exception to the use of the term "burnt-out ash" in connection with the residue from a septic tank. I believe this expression was originally used by Mr. Cameron, but it is not a phrase that a chemist would use, seeing that in the first place the process under which it is produced is not an oxidation process, but one of hydrolysis brought about by anaërobic organisms, and secondly its composition is not purely mineral, as the phrase "burnt-out ash" would lead one to imagine. No one I think at present knows exactly the character of this residue. It may be compared to peat or humus; but this is not important, as the quantity is so small.

The discussion was then resumed by

Mr. Howard Martin (Fellow) who said that on one point he was sure all present were united, even though their opinions differed as to the different sytems of sewage disposal, and that was that a very cordial vote of

thanks was due to Mr. Scoble for his extremely valuable Paper, and for his scientific treatment of a most difficult subject—one of the two or three most important subjects which could be discussed at the present time in connection with municipal management.

It was not only that rapidly growing population rendered it increasingly difficult to deal with the sewage in most towns, but the very close connection of sewage purification with water supply made it in many cases a matter of life and death that an efficient system should be discovered and used. He did not know what there was in the sewage question that could inspire a sort of sentimental affection, but it was a most singular thing that sewage experts, when it was suggested that any other system could be better than that which they themselves adopted and upheld, seemed to discuss such suggestion from the point of view of a young man who hears the object of his affections disparaged rather than as a mere matter of rather unsavoury business, and possibly this had led to what he ventured to think the somewhat unfair treatment Mr. Scoble's Paper had received from some of the previous speakers.

The bacterial system, as Mr. Scoble had said, was a system of purifying sewage by entirely natural processes, without machinery and without chemicals; with practically no sludge (or at least no unmanageable quantity of sludge), and without the necessity of acquiring any large area of land.

His own experience of sewage purification had been of the irrigation system, and like other people who had experience of sewage purification he naturally thought that the system he knew was the best, but he would admit that it was only the best under extremely favourable conditions and, even under those conditions, it involved great

expense and the acquisition of large areas of land, which in many places could not be obtained, and the favourable conditions that appeared to him necessary to make the system work perfectly were in many cases absolutely impossible of attainment. With regard to other systems, all were only too familiar with the objections urged against them—expense, the use of chemicals, the difficulty of purifying the effluent and the possibility of poisoning it when purified, the great difficulty of dealing with sludge, and other objections of the same kind.

That being the case, a system having the advantages which were claimed for the bacterial system was at any rate entitled to be discussed on its merits, and it seemed to him to be quite irrelevant in discussing it to talk about, for instance, the enormous expense incurred in trying previous experiments with other systems which had turned out to be failures. If that were relevant at all, it only meant either that no further improvement was possible and that the bacterial system was not worth discussing, or that it would be better to put up for ever with existing failures rather than run any risk of future ones.

Again, to urge as an argument against the bacterial system that it could not purify sewage charged with hydrochloric acid, seemed to him to be wandering from the point. He thought that no one would imagine for a moment that a system which depended for its action on living organisms could deal with sewage charged with acid poison, in fact the reader of the Paper himself took the trouble to state that such a thing was actually impossible. What, it seemed to him, one wanted to hear was whether or not the bacterial system had been proved by experiment to be practically successful: it was a matter for discussion at a subsequent stage as

to whether or not the system should be tried in any particular place.

One of the recent experiments in the use of the bacterial system was at Croydon, on a supplemental sewage farm (which was unfortunately on a very heavy clay soil), where there had been very considerable difficulty in satisfactorily dealing with the sewage by irrigation. The experiment, however, had only been tried in a very rough and makeshift manner, and could not be regarded as conclusive ; but even there it had been so satisfactory as to lead to the hope that the extension of the experiment on proper lines would overcome all the difficulties of management of that particular farm.

The report of Mr. Baldwin Latham, in conjunction with Dr. Frankland, as to the sewage at Manchester, dealt with the matter in a most complete and exhaustive manner. He did not propose to quote details from the report, which was charged with diagrams and tables prepared from every conceivable point of view. But the conclusion at which those gentlemen had arrived was that " The bacterial system is the system best adapted " for the purification of the sewage of Manchester, and " that all doubt as to its suitability owing to the " presence in Manchester sewage of much manufacturing " refuse has, through the convincing results of our " experimental inquiry, been entirely banished." The evidence of Mr. Baldwin Latham on that subject was certainly entitled to be received with considerable respect, not only because he had a very large experience in dealing with sewage, but because he had been very closely identified with other systems, and it might fairly be assumed, therefore, that he had not approached the consideration of that system with his mind at all biassed in favour of something new, unless, indeed, as was the

case with some people who had tried all the other systems, he was fully convinced of the unsatisfactory character of them all.

But even if it were not proved that the bacterial system was competent satisfactorily to purify sewage from manufacturing towns, where it was charged with very large quantities of refuse from works of various kinds, it might be, and it probably would be, a discovery of the utmost value to the country. There were many hundreds of towns and villages, and even large country houses in England, where nothing but domestic sewage had to be dealt with, to the inhabitants of which it would be the greatest possible boon to be able to purify the sewage of those places without machinery, without chemicals, without any difficulty of dealing with the residuals, and without having to set apart a very large area of land; and above all without the slightest risk of contaminating the watercourses. If the bacterial system would do no more than that, it would accomplish more than any other system, so far as he knew, that had ever yet been tried.

Mr. Richard F. Grantham (Associate) thought, as Mr. Scoble had chiefly dealt with the biological details and the experimental stages in his Paper, that he might be allowed to describe his own practical experience of the bacterial treatment of sewage.

During the last twelve months he had constructed and worked tanks for bacterial treatment in the case of two towns. The first was finished rather more than twelve months ago, and only dealt with about 20,000 or 25,000 gallons a day. There were two sets of tanks, on the Dibdin or Sutton system, which meant simply filling

the tanks with burnt ballast, or brick rubbish, or coke breeze, whichever of these materials was most easily obtainable. No land was used, except that required for the tanks. No application was made to the Local Government Board, but the expenses were met out of the current rates, so this was, he thought, a fair test of twelve months' working of the bacterial treatment for domestic sewage. It was not long ago since the effluent was analysed, and was described as "excellent" by Mr. Dibdin. The system seemed to be working extremely well. The tanks had one filling a day, and seemed quite capable of dealing with it. There was no tank for the reception of grit, or anything of that kind, because storm water was entirely cut off from the sewers. He had been afraid to put a tank of that kind because there was a good house very near the tanks, and it would have been very disagreeable if it had been necessary to clear a tank out at any time. The sewage came straight from the outfall sewer into the tanks, within 27 yards of the house, and no complaints whatever had been made.

In another case about 170,000 to 180,000 gallons a day had to be treated. In the first instance plans had been prepared really for chemical treatment, and application was about to be made to the Local Government Board, but at the last moment the Council, having been to Sutton, were so impressed with what they saw there that they resolved to use the tanks, intended for chemical purification, for bacterial treatment. There were a double set of tanks—an upper and a lower set—as in the other case. The sewage went into one set, and after percolating through that set went down into the next, at a level of about three feet lower.

He should say that of that sewage there was something like 33 per cent., or 50,000 gallons, of brewery

refuse, which it was well known was most difficult to deal with. It had been a trouble to the Council for upwards of 30 years, as they were subject to the Thames Conservancy. However, that system had now been working for six months, and when he saw it the other day the effluent from the lower beds seemed to come out perfectly clear.

The Local Government Board required of course that land should be used, and five acres of very porous subsoil was taken for the purpose. The effluent went from the lower set of tanks on to the land, and there was an end of it. There was no effluent from the land at all; the soil was so porous that it sank away, and there was consequently nothing for the Thames Conservancy to complain of.

Although twelve months or six months was not a long time to test any treatment, he thought the working pointed to a solution of the sewage question where domestic sewage had to be dealt with, and where there was nothing very troublesome in the way of acids.

As Mr. Scoble had mentioned in his Paper, the Local Government Board had laid down conditions which seemed to him, with regard to the area of land, rather excessive. They required tanks of a capacity four times the dry-weather flow of the sewage, and, in addition to that, a storm water filtration area laid out on the land somewhere. From what he had observed it seemed that inasmuch as the Board insisted on subsequent land treatment, the capacity of the tanks required was nearly twice as large as it need be. Of course it was an error, if it were an error, on the right side, but at the same time it did enhance the cost a good deal to the District Councils.

With regard to alternating gear it was very

useful to have it, but he knew of at least one case where he thought it was rather expensive. He was told that it would cost £400, while he had put down sluices which answered all the purpose for £50; so he was not very much inclined to recommend the use of alternating gear if he could help it. It might be very useful, but he thought in all such cases it was necessary to employ labour, and it was just as well to have properly skilled men to look after the works.

Mr. C. G. Moor (Visitor) said that any remarks he had to make would be more from the analytical than from the engineering point of view. He noticed that the author had stated that sewage was frequently alkaline, and that this might be due in a great measure to soap. No doubt that was so, but he thought that it might also be due to the ammonia it contained from the very ready decomposition of the urine.

He was glad to see that the author made a point as to the misnomer of the word "filter" as applied to sewage beds: that was a point that very often confused students of the subject. In all these processes it was practically a tank full of small particles of coke or coal into which the sewage was run. As to the points raised by the author with regard to the anaërobic or aërobic systems, he certainly felt very strongly in favour himself not of an aërobic one alone, but of a combination of the two; first the anaërobic to start the decomposition of the solid matters, and finally the aërobic tank in which the matters become hydrolised and then oxidised. As public analyst for the city of Exeter he had visited the installation at Belle Isle probably more often than any other analyst, and on no occasion had he seen the works going

otherwise than in the most perfect manner. He attributed that to the solid matters being thoroughly hydrolised before they went on to the bed.

The author had also alluded to the advantage of all bacterial systems, inasmuch as they do not produce the sludge, which is the difficulty in all chemical processes. No doubt there must be a certain amount of sludge, or ash, or sand, or mud, whichever it might be, which had to be removed from time to time. All sewage systems, even where the storm water was excluded, would contain a certain amount of mineral matter that could not decompose, and that must accumulate in the tank, and be pumped out, or removed in some way or another. He had been very curious to see what kind of stuff it was that accumulated in the bottom of the tanks in the septic installation at Exeter, and on several occasions he had ladled out some of the matter and examined it. By its appearance he should say that it was entirely different from the deposit one might get from raw sewage, and there was no smell or offensive character about it.

With regard to the point raised by the last speaker with reference to automatic gear, he thought that when it was seen how excellently this gear worked anyone would be loth to trust to employing labour, particularly during the night. It was mentioned in the Paper that an installation was being put down to deal with the refuse of jam factories. Some samples had been sent to him of the refuse of a jam factory, and if it would be interesting to Members he would be glad at some future time to give information with regard to it.

Under the Dibdin system there was screening. No doubt screening would ease the work on any bed, because it was the larger particles that tended to block up the first bed and so produce difficulties. But screening must

cost money, and the stuff screened out must be put somewhere. If it was removed there would be less work thrown on the installation, and this must be taken into account in judging the relative merits of one system in which the installation did the whole work, and of another in which a large part of the work was taken off it by mechanical means.

The author had referred to Colonel Ducat's method of purifying sewage, in which the beds were warmed. Speaking as a bacteriologist, of course he was aware of the fact that bacterial decomposition occurred much more rapidly and thoroughly in "blood heat" warmth solutions than in those only at " room temperature " or warmth of the atmosphere. It appeared to him that the question as to whether the future beds should be warmed or not was chiefly one of cost. If it was found that a much smaller bed, with warming, would do the work of a much larger one without, it might be advisable to adopt it, because the initial cost would be less. Where land was difficult to obtain it would be much better to have a small one warmed than a large one which did not need warming.

The description given of the septic tank installation was a very correct one, as he knew from having visited the works on very many occasions.

With reference to the requirements of the Local Government Board with regard to land, he certainly echoed the hope of the author that these would not be insisted upon, and he thought that after a short time it would be seen that bacterial installations would be able to carry out the work quite as well as if a large area of land were used.

The author had also remarked that analyses of sewage effluent should be left to chemists and bacteriologists, as

it was essentially chemists' work. It appeared to him that there was far more for the chemist to do than for the bacteriologist. In determining whether a process was successful, it was not so much a question of bacteriology as one of chemistry. The practical point, of course, aimed at in any sewage installation was to treat the sewage as cheaply as possible, provided that the treatment was efficient, and that the effluent did not go bad, or rot, or produce a nuisance.

He did not suppose it would ever be possible to make sewage effluent fit to drink. Various experiments had been carried out with the view of showing that certain processes might produce effluents free from pathogenic germs, or remove all danger of typhoid, cholera, and the like, so that the effluents might be fit to drink. Any assertion that a given process would produce an effluent fit to drink must be founded on the not finding certain bacteria in that effluent. He did not think that it had ever been shown that typhoid bacteria had been found in water which had produced the disease. Typhoid bacteria had been sought in sewage into which typhoid excreta had been discharged, but had only been found in one case, in which the sewage was taken close to a hospital, and even then it was necessary to request the hospital people not to disinfect the sewage before it was possible to discover them. He should regard it as dangerously mischievous to conclude that because the pathogenic germs could not be found in an effluent it would be safe to drink it.

The author mentioned that chemical precipitation was attempted to stop putrefaction or decay, and was followed by subsequent decomposition in the effluents. He thought it would be quite clear why that happened. Chemical precipitation aimed at taking out from the

sewage those matters which were apparent to the eye and to the nose, namely, the removal of those matters which were suspended, and also the removal of the smell. It could do that, but no kind of chemical precipitation would remove that which was soluble, and was actually in solution in the water. If floating matter in sewage were precipitated with lime a perfectly clear liquid, even bright and sparkling, might result, but if it were kept for a short time at a room temperature that liquid would putrefy and decompose, and the subsequent or secondary decomposition was due to the matter which was in solution. No chemical precipitation could touch that; it only took down what was in suspension, and the fact that sewage was not treated chemically was simply due to a want of the knowledge that it was not the suspended matter which produced trouble, but matters in solution which no chemicals could touch.

As to the analyses of sewage, for the chemist it was exceedingly important to have a correct sampling of the whole flow, and that was a most difficult thing to get. In the morning between ten and eleven the sewage was very foul and the flow very considerable. During the night the sewage was very weak and the flow was very small. There must be an average time with every installation, and he believed that that time was generally about three in the afternoon, when the flow was normal and when also the amount of impurity might be regarded as normal. That was the time to take a sample, unless indeed it was possible to take half-hourly samples throughout the day and mix them.

What was the point of analysing sewage or sewage effluents? It was to endeavour to see whether the installation was doing what it ought to do or doing what might reasonably be expected of it; or again, to see

whether the effluent was coming up to a given standard. The various standards that had been proposed were, in his opinion, not very practicable. One could not say precisely what they aimed at. For examining effluents he had endeavoured to lay down a standard which would satisfy one that if an effluent came up to those arbitrary figures that he had designed, then one might feel sure that it would not putrefy, for after all the whole object in treating sewage was to ensure that it should be clarified and should not go bad again afterwards.

He would like to mention the figures which he thought expressed chemically the character of an effluent that would not afterwards putrefy. He did not say for a moment that any fixed standard of figures ought to be insisted upon in any case, but if one could get an effluent that came up to those figures one might feel one was doing pretty well, even if the effluent were running into a small stream or a dry ditch. The figures were as follows: "Suspended matter, not more than two parts per 100,000; "Albumenoid Ammonia, not more than 0·2; Oxygen "absorbed, not exceeding 0·75; and lastly, which was the "most important of all, Nitrogen in the form of Nitrates, "at least 0·75 per 100,000," which was the amount of nitrates that should always be insisted upon.

Mr. F. P. Candy (Visitor) said he should like to ask a question with regard to the reference in the Paper to the requirements of the Local Government Board. Mr. Scoble put it, he thought, that each set of filters, both coarse and fine, must be of sufficient capacity to contain the normal dry-weather flow of 24 hours. He thought that remark related only to contact beds, for where other types of beds were used the capacity could

not be estimated by simply what the beds would hold. He thought that the words of the Local Government Board's requirements were (speaking from memory): "Three times the dry-weather flow, or a dilution of two "to one, will be fully treated as sewage whatever "process is adopted." He did not think there was any reference to any stated capacity.

He saw that a previous speaker had raised the question of anaërobic and aërobic treatment. It was generally considered that anaërobic treatment was an absolute necessity for good purification. He thought that statement was, however, only theoretical. For instance, some very interesting experiments had been carried out recently at Reigate and Red Hill with two beds, each with an area of 50 yards by 3 feet 6 inches deep. The final bed always worked as an äerobic sprinkler bed. The first bed was designed to work as an anaërobic bed. The sewage was passed through a catch pit which held about one and a half hour's flow, and then it went into the anaërobic bed. There was no screen. The inlets to the anaërobic bed were submerged and the water passed in at the top, was collected in drain pipes at the bottom, and delivered into a rising channel, which carried the water up to about the same level as the inlet, so that the working was continuous. The effluent from that bed, as an anaërobic effluent, was good. There was, however, a very large quantity of tan refuse to be dealt with, and, when that came down, the sewage assumed a very strong tea colour, and as a rough and ready test they estimated the purification by the state of the effluent from the tanny sewage. If the tan were removed they would consider that good work was being done, but if not the purification was unsatisfactory.

As anaërobic treatment was putrefactive treatment and putrefaction caused more or less smell, there was a smell at times from the anaërobic bed, and the works being close to a common on which golf was played the Corporation wished that there should be no sentimental objection on that score, and therefore the surveyor decided to try the first coarse bed as a contact or Dibdin bed. After the anaërobic bed had been working about nine months he had it opened, and it was found to be perfectly sweet: there was no smell and no accumulation of sludge, and nothing to indicate choking up. The results as regard the tan were not altogether satisfactory: when the tan was strong the bed had practically no effect on it. As a rule, however, there was no smell from the sewage that came from the bed. After working it some time as a contact bed, the bed was worked as a sprinkler bed, and consequently he asked the surveyor when he (the Surveyor) was going to use sprinklers. The Surveyor replied that he did think it was not very much use to put sprinklers on, as he did not see how, if a contact bed, in which the sewage remained six hours would not remove the tan, a sprinkler aërobic bed giving only ten minutes in the bed would do it. Ultimately the sprinkler was put on the bed, and the results were very surprising. The whole of the tan was removed in the first bed, and there was no smell from the partly treated effluent. The last report from the medical officer of health was that the effluent from the first bed (the coarse bed only) was after ten minutes' treatment sufficiently good to go into the effluent ditch without any further treatment. He thought this showed that it was quite erroneous to assume that anaërobic treatment was necessary to sewage. Whatever anaërobic treatment might be

necessary, sewage got, he thought, in the sewers themselves. He believed that Colonel Ducat had also proved this by his experiments treating the sewage aërobically from the very beginning.

He considered the figures proposed by the Exeter analyst rather low. Albumenoid Ammonia, 0·2 in 100,000, was very considerably less than the figure suggested by Sir Henry Roscoe, or by the Manchester and Irwell authorities. As to nitrates, there was a very interesting report made by Drs. Kenwood and Butler, who found in bad effluents a very considerable quantity of nitrates; so it appeared that the presence of nitrates alone was not a guarantee that an effluent was good.

Mr. W. D. Scott Moncrieff (Visitor) said he supposed that the Meeting was made up of those who had come to obtain information and those who were prepared to give it, and really he was not sure to which category he belonged. It would certainly be of extreme interest to him, and to many others connected with the working of these systems, to know with some accuracy something of the attitude of the Institution with regard to the question of the bacterial purification of sewage, and to know how far it had impressed them as being practical and practicable. It was really rather difficult for one to gather what was the popular, or rather the professional, estimate of the position of the bacterial treatment as dealing with the great question of sewage purification.

He had just received from Dr. Reid a very recent report upon what had been going on in the county of Stafford. It was an elaborate report, and many of the figures were rather startling. The cost of works in connection with sewage purification in the various watersheds

either going on at the present moment or just completed, amounted to the enormous sum of £434,725. That, he believed, might be spoken of as only dealing with the fringe of the subject, and this in one county alone. Out of that large sum of £434,725 something like the odd £34,725 was taken up with house connections and sewerage work itself not connected with the actual purification of sewage, but for the delivery of the sewage to the purification works. Taking that as a representative report (and he thought it might well be so considered), one was first of all impressed with the point that the great majority of those installations had a chemical deposition as a preliminary either to the treatment of sewage upon land or to the treatment of sewage bacterially. Dr. Reid, however, although he went into details of what those methods were, speaking of his own town of Stafford, pointed out the great advantage and saving that would accrue from the application of anaërobic fermentation as a substitute for deposition by chemicals.

The preliminary anaërobic fermentation did at least aim at the doing away with the use of chemicals, in the sense that it was a complete substitute for them. But if the advocates of the bacterial treatment were right, that natural method of obtaining the results otherwise obtained by chemical deposition was a vast improvement on artificial or chemical methods, because the whole of the organic matter was thrown into solution, or hydrolised practically without expense, and when that very important result was obtained the effluent resulting from that fermentation did, as a matter of fact, contain all the fertilising constituents of the sewage broken up or in a partially decomposed condition. That might be taken as the aim and object which any intelligent appli-

cation of the bacterial treatment had in view in substituting an anaërobic fermentation for deposition by chemicals. No ordinary sewage could be discharged upon ordinary filter beds without very rapidly clogging them and becoming a nuisance or ceasing to flow altogether; and it was quite obvious that any liquid, such as sewage, containing floating particles of organic matter, not to speak of gelatinous and fibrous bacterial growths, would very soon choke up any apparatus which depended on tubes with small holes for the purpose of its distribution.

He would, with the permission of the Meeting, quote a few lines from a Paper which he read at Birmingham in October, 1898, at the Sanitary Congress, as to what were the objects of the bacterial treatment. "The "working hypothesis of the advocates for the purifica- "tion of sewage by bacterial treatment is based on the "belief that the effete substances contained in sewage "are within the capacity of nature to deal with, unaided "by the use of chemicals, seeing that nature does carry "out the work of purification, sooner or later, without "any assistance from man, and that as a matter of fact "no great accumulations of effete substances exist at all. "The hypothesis may be regarded as a truism, and the "problem really resolves itself into the discovery of "methods by which nature can be so aided in the case of "sewage that it can be purified on the largest scale at a "reasonable cost without creating a nuisance and without "the use of chemicals. This is what has to be proved, "not as a laboratory experiment, but as an available "and practical process."

In dealing with the question how that was to be carried out it must be remembered, first, that whatever the process might be, it was quite certain at any rate

that it was not instantaneous but gradual; secondly, that dividing it into any convenient number of stages or periods, each of those must represent a different character of food supply. Nature had built up the organic substances contained in sewage by an elaborate process of vegetation, and so on, and the object of the bacterial treatment was that of breaking them down into the original mineral elements from which they had been evolved. Those stages must, in the nature of things, be gradual, and each of them must represent a different nature of food supply. It followed that no one kind of organism was capable of flourishing in all the different media equally well. He thought these propositions might be accepted as obviously true.

Any plan, or system, or apparatus which alternately provided opposite conditions within the same area or vessel could not possibly represent nature's method to the best advantage. Therefore he thought that all those plans, all that apparatus which consisted of first filling any vessel with sewage, raw or hydrolised, or partially broken up sewage, or sewage with high nitrates, and leaving it full under what must be anaërobic conditions, and then leaving it empty, which must surely be under aërobic conditions, did not, as a matter of fact, follow nature's method of producing the marvellous results by which the whole of the foul substances associated with life were completely swept away and renewed in the forms of vegetation and living organisms.

It must be remembered that there was only one final result. There might be certain losses arising from the process, due to the passing away, when gas was formed, of the substances of which the organic matter was made up; but the ideal final form was, of course, that of complete mineralisation, and the question therefore of

nitrates must be a very important one in the solution of the problem. He saw that the City Analyst of Exeter, in the table which he had suggested for the acceptance of analysts with regard to final effluents, put 0·75 parts per 100,000 as the minimum of nitrification in the effluent; but he would say from his experience that not 0·75 but 7·5 should be the standard of nitrification to be adopted. To repeat in two or three words what he had already said: Anaërobic treatment dealt with more than the mere question of the chemical result obtained; because it dealt with the question of hydrolising the whole of the organic matter without the use of chemicals; and, secondly, the final result of nitrification was of the utmost importance, and something like 7·5 parts per 100,000 ought to be obtained in ordinary sewages in every case.

One of the speakers referred to the question of warming. He remembered an interesting object lesson with regard to that which occurred during the winter of 1891-1892, when a slight fall made the ground white everywhere, with the exception of the top of one of those beds where it had melted. He made experiments in warming so far back as 1892 or 1893, but he thought, from the practical point of view, that it might be taken that, at any rate in the anaërobic fermentation, there was what he might call a nascent temperature due to the fermentation itself which was amply sufficient to secure its activity.

Reference had also been made by the City Analyst of Exeter to the question of pathogenic organisms in effluents, and especially to some organisms whose absence on the occasion of one or more samples being analysed was not by any means conclusive that any particular effluent was safe for the purpose of drinking, or of being

passed into a stream. That was perfectly true. He would be a very bold man who, taking a particular sample of an effluent and failing to get a cultivation of a particular pathogenic organism, reported that that effluent was in any way safe. It seemed to him, however, that if there was going to be any means taken for securing immunity from pathogenic organisms, it was obvious that the proper point at which to apply the means, either by electrolytic processes or otherwise, was after nature had done her work by breaking the organic matter down into its simple forms, because then any chemicals applied would of course go immensely further than at any previous period of the process. That had been noted by Professor Sims-Woodhead and others, and was of course a very obvious conclusion.

With regard to taking samples, a very good way of doing it was to take half-hourly samples three hours at a time, doing it in cycles through the whole twenty-four hours, so as to get a fair average all through the various periods of the night and day throughout the whole week.

With regard to the immediate future of the bacterial process of purification, his own view was that a very high level had been reached, from the scientific point of view, in the report of the experts upon the experiments which had been carried out at Manchester. Great emphasis was laid on the value of nitrates, not only as a test of purity, but as a cause of purification of the streams into which the effluent might pass. That was a very important point indeed. If an effluent had been successfully treated bacterially, it was not only safe in itself but would be a natural purifier of foul water into which it passed. That was proved by a long series of experiments (he thought forty in all) in which the

effluent with an exceedingly low nitrification was mixed in equal quantities with the water of the Manchester Ship Canal, the result being that the foul water became greatly improved in character, and even under the temperature used in the laboratory for incubation did not show signs of putrefaction.

Mr. ARTHUR J. MARTIN, of Exeter (Visitor), said that there was one remark of the last speaker which he would like to refer to. He had read an extract from the Report of the Medical Officer for Staffordshire, in which it was stated that a sum of £400,000 was now being spent in a part of the county on works of sewage disposal, the greater part being for works of chemical precipitation. It would be a mistake to regard that fact as an index of the present attitude of the engineering profession. Schemes of sewage disposal took a considerable time to incubate, and longer still to pass through the various stages of a Local Government Board inquiry, sanction, and the getting of tenders; and the general character of the works in progress at the present time might fairly be taken to represent the mind of the profession at least two years ago rather than their attitude at the present day. If one could obtain statistics of the schemes now before the Local Government Board he had no doubt there would be found an overwhelming preponderance of those on one or other of the bacterial systems.

Like the last speaker, he had considerable curiosity to know what was the attitude of The Surveyors' Institution on that question, but unlike him he was able to find some guidance in the report of the last evening's discussion.

He certainly gathered from that report that there was in the mind of most of the speakers a hesitation to accept the bacterial systems as a final solution of the problem of sewage disposal, and a disposition to regard these systems as more or less experimental. He thought that hesitation would be completely swept away if the speakers could have made themselves familiar with what had been done (not by one experimenter alone, not only in one place, and not on a small laboratory scale, but by a multitude of workers, under all conditions, in various parts of the country), and have seen how completely the results of their work had stood tests far more severe and searching than had ever been applied, for instance, to any system of chemical precipitation.

There was a disposition to regard bacterial systems as being in antagonism to treatment on land, which was regarded as the natural method of disposal of sewage. There could not be a greater mistake. Bacterial systems represented land treatment in its perfection. An engineer would always choose a loamy soil, or gravel soil, in preference to a clayey soil. What the loamy or gravel soil was to the clayey soil as a means for dealing with sewage, the bacterial bed is to the gravel soil. It was simply land, concentrated in a smaller space, less costly, and under infinitely better control, and in that lay the real secret of success in sewage treatment.

Perhaps he might refer to one or two points raised during the previous discussion. One speaker, in the course of a very able speech, expressed a doubt as to how bacterial systems would stand the rough wear and tear of everyday work. The only answer was that they were doing it every day. They were standing the test of working conditions, and doing so more successfully than any chemical system could possibly, in the nature of it, do.

Then, again, a doubt had been expressed as to how they would deal with such a matter as road detritus. He need hardly point out that the interception of road detritus from sewage was one of the simplest problems with which an engineer could be called upon to deal.

It had been also contended that the rush of sewage at certain hours of the day would greatly upset the conditions under which works would operate. In answer to that, he would simply point out that at Barrhead, near Glasgow, works for a population of 10,000 were in operation, and had been in successful operation for many months, in which the flow to the works was stored in the tanks, and equalised by means of modules, and then passed out on to the filters in an absolutely uniform stream.

The great bugbear in connection with bacterial treatment was the doubt as to how it would answer when manufacturing refuse got into the sewage. If ever a problem had been solved successfully he thought that problem had been, not in one place alone, or under one set of conditions, but dealing with sewages notoriously the most difficult and the most complex in character to be found in the kingdom. Take, for instance, the case of Yeovil with its brewery refuse, tannery refuse, refuse from leather dressing works and dye stuffs, where a bacterial system worked admirably. In Manchester again, with a sewage which would defy bacterial treatment, if any sewage would, experts pronounced that it was the only efficient system for that city, and, he believed one enthusiastic expert said, for the world. At Leeds there was the same result. It was true that there had been difficulties in matters of detail, and, as one speaker had pointed out, after a year's experiments at Leeds the council had not been able to make up their minds on the question.

There was, however, no doubt of the efficiency of the bacterial system; the only doubt was, which of the systems now under trial would best answer their purpose.

It was practically true that manufacturing refuse of certain kinds, notably mineral acids, had an effect inimical to micro-organisms, but this question was only one of quantity, and it was not found that these dangerous substances were present to such an extent as would interfere in the least with the satisfactory working of the system.

The same applied to disinfectants. During the previous evening's discussion the question was asked how bacterial works would behave if a large flush of disinfectants were sent down the sewer, accidentally or otherwise. He could only reply that any authority who undertook to stop the working of the bacteria by means of disinfectants would practically bankrupt themselves in the effort to do so.

A question had been raised as to the cost of covering tanks. There seemed to be a rather exaggerated idea of the cost of that operation, but if it were worked out, he thought it would be found that the initial cost of covering the tanks for a given town would be less than was spent in one year, in working expenses, by any of the older systems. A previous speaker raised a point as to the use of alternating gear, and said he believed that alternating gear would be so far developed that it would in future be possible to use it. But he would point out that at Exeter the alternating gear had already effected something like 10,000 discharges with absolute reliability and certainty. That was a result which could not be attained by the use of manual labour. It was hopeless to expect working men, earning

low wages, to attend to their work with the skill and fidelity which was necessary to produce such a result. When bacterial works, properly fitted and in good order, were once set going, the best plan was to lock the gate and not allow the workman on the premises oftener than once or twice a week. This would ensure better results than if an attendant were always there, with, for the greater part of his time, nothing to do but exercise his ingenuity, with the result of putting the works out of order. It had been objected that bacterial methods of sewage disposal wasted what should be utilised on the land. The answer to that objection was simple. As the last speaker had said, in any efficient bacterial treatment, the nitrogen of the sewage was converted into the very form in which it was the best food for plants. The sewage after such treatment was more valuable than before.

Mr. G. R. Strachan (Visitor) proposed to approach the subject from the point of view of one who had long since made up his mind that the bacterial process had come to stay, but who rather feared that the various systems were being run by persons whose interests led them to take too sanguine views, and to unintentionally mislead the public and thereby perhaps to do some harm. When a man had a monetary interest in a process, he could hardly speak upon it with the same impartiality as others who were not so situate. The common idea that the bacterial process would treat sewage for nothing a year for ever was a mistaken one; the plant was expensive to lay down, and, with any alternating gear whatever, there must be some expense in working.

The first system that attracted attention in London was the bed at Barking, which illustrated in two ways his contention that some persons adopted too sanguine views. It was thought to be established from that experiment that it was possible to deal with sewage at the rate of 1,000,000 gallons per acre, per day, on a bed 3 feet deep. No one now contended that this was practicable. Two acres was doubtful, 3 acres possible, and the Local Government Board required 4.

That was an instance where too sweeping conclusions had been drawn from very small premisses.

Again, the conclusion was drawn that if a bed 3 feet deep and an acre in extent would deal with 1,000,000 gallons per day, then if it were 6 feet deep it would deal with 2,000,000 gallons per day. It seemed the simplest thing in the world; merely multiply by 2 and the thing was done. Nature did not, however, look at it in that arithmetical light, and it happened that at Barking the bed 6 feet deep did not deal with more than the bed 3 feet deep.

Further, in connection with that bed, he would like to point out the great difficulty that there had been in the emptying of it. He happened to be down there shortly after the experiment was made. The bed had been allowed to stand full for 2 hours; the valves were then opened full, and allowed to discharge freely. After 19 hours the valves were shut, and there was still 14 inches of filtrate on the bottom.

Some very valuable experience had been gained at Sutton, where the coarse sewage, after a small screening, had been treated by the beds for a longer time than anywhere else, with some very instructive results. For 274 days one of the beds was charged practically twice a

day, and its water capacity remained at 36·8 per cent. (by its water capacity he meant that quantity of water the tank would hold when it was measured in proportion to what it would hold if there were no filtering material in it). The very happy idea occurred, that if 18 inches more of stuff were added to the depth so much more work would be got out of the bed. It was then filled $2\frac{1}{4}$ times a day for 222 days, and its water capacity promptly reduced itself to 24 per cent. It was then tried for 308 days more, filling at the rate of $2\frac{1}{3}$ times a day, and its water capacity further reduced itself to 15 per cent. The 18 inches that had been put on in order to get more sewage through was then removed; and he was glad to say that the water capacity was going back to its original volume. That only showed that one could not draw from any given experiment conclusions which, although accurate in themselves, did not necessarily apply to all cases and for all purposes. Then further, at Sutton, it was to be remembered that the whole of the sewage was not dealt with on the Dibdin system. They took what they liked, when they pleased, and although they dealt with about one-half or a little more, and that very thoroughly and very honestly, yet it was not a case in which the whole sewage was dealt with on the Dibdin system. Sutton had to be differentiated again from an ordinary town in that, while rain did augment the flow to a small extent, there was no road water but only a little roof water, and most of the augmentation came from filtration through the subsoil.

One of the difficulties that faced those most sanguine as to these processes was that, having started with the idea that they ought to get a million gallons through an acre, when they found that this could not be done

they had to set to work to find some other way of coming up to the standard which they had set up.

In the early days of the Dibdin process it was reiterated until it was almost believed, that the points most essential were a period of resting full, slow emptying, but lastly, and most important, a good period of resting empty for aeration. It was curious how education progressed when one had to get out of a difficulty. By the intermittent use he had spoken of a purification of 85 per cent. had been obtained, which he thought exceedingly creditable. Then there was the process called streaming, which consisted of passing continuously through the beds the water that came down through the sewers. It was very disturbing to a man who had the period of resting firmly fixed in his mind to find that the bed could be used continuously; and the claim for that was that there was 53 per cent. of purification. But one would hesitate, with only 53 per cent. of purification, to turn an effluent into a stream.

With reference to the septic tank, he would like to say that when he examined the Exeter one there were 35 inches of deposit on the bottom, and it was filling up at the rate of $\frac{1}{6}$th a year. Mention had been made in the Paper that there had been no clearing out. That was true, but the road detritus chamber had been cleaned out.

He wished to emphasise the fact that, at Exeter, the sewers by which the sewage got into the tank favoured, in storm times, the rapid passing of the storm water direct into the river, untreated, and he was sure, if the whole of the sewage of the town and storm water passed

through it, the detritus tank would have to be emptied more often than it was at Exeter.

Further, it ought not to be overlooked that, at Exeter, the effluent was discharged into a river which was large compared with the volume of the sewage, and of course that made a difference, for he took it that the final process of nature was carried on by the waters of the stream into which the effluent was discharged.

Then, as to the cost of these processes. He was at present putting down some beds on the Dibdin system for a very small town. They had to be constructed entirely in concrete, and as the site was perfectly flat, the coarse tanks had to be built up quite above the ground, and the fine tanks were upon the ground itself. They cost 40*s.* a square yard, or £10,000 an acre, and if 4 acres to the million were necessary, that would run into money.

At Hampton on Thames, so far as he could make out, the beds had cost 15*s.* a square yard, 4 feet deep; that roughly worked out to about £3,000 an acre.

At Hassocks, a place where he was putting down contact beds in the cheapest possible form, the subsoil was clay, and, by simply digging out and putting back the stuff after burning the beds were constructed at 11*s.* a square yard, which came to £2,500 an acre.

He had unfortunately or fortunately (it all depended on the way one looked at it) been called into a town in the south, where the engineer was unhappily laid aside by illness, to complete the work. There was a septic tank installation which he intended to test faithfully and honestly. The cost of that installation was £2,200, and it was to deal with 150,000 gallons of sewage

and storm water per day. Of that, however, a very large sum was for the gear and the patents connected therewith.

A speaker had referred to the excessive cost of the alternating gear. In the case he had mentioned it amounted to nearly 40 per cent. of the actual cost of tanks and filters. That was certainly very heavy indeed, and he hoped that some means would be adopted—of course not in the case he was referring to, because that was settled—whereby a cheaper and as reliable a gear would be found to answer the purpose.

Mr. Harry G. Assiter (Professional Associate) said a previous speaker had given it as his opinion, that the anaërobic tank might be omitted, inasmuch as anaërobic action took place to a very great extent in the sewers. He should like to ask whether, in the opinion of that speaker, all sewers were of such construction as to favour a sufficient anaërobic action, so that the sewage when it was delivered at the outfall should be in a proper condition to be placed in the aërobic tank. He knew several towns himself in the north of England where the construction of the old sewers was such that the anaërobic action took place only too well, and the deposit did not reach the outfall unless it was flushed down by some heavy storm.

Mr. Scoble, in reply, said he could only express at that late hour his obligation to the Members of The Institution and those visitors who had contributed to the

elucidation of the subject. It was impossible to refer to the many points that had been raised. Some had been dealt with by subsequent speakers, but, with regard to one or two, he should like to make a few remarks.

The great point in dealing with manufacturing refuse was that all matter of animal or vegetable origin was capable of being easily digested by an anaërobic process. Where acid waste occurred, it did not, as a rule, bear any very great proportion to the total volume of the sewage. But if a case were to happen in which by its abnormal presence, the sewage were rendered acid, it would be an easy matter to introduce some counteracting influence, and that would be necessary, no matter what system was employed, in order to purify it. Reference had been made to Gloucester by Mr. Willis Bund, who said that the salmon were prevented from travelling up the stream because of the foul nature of the discharge into it, but apparently the sewage of Gloucester undergoes no treatment whatever, and he could imagine that any self-respecting salmon would turn tail.

The reason why the earlier systems referred to by Mr. Collins were not successful was that they were opposed to nature. That point, he thought, was brought out in the Paper.

The covering in of the tanks was not essential, but it was preferable. In the first place one could be more sure of their condition. The tanks were not interfered with by rain or cold to any great extent, and if putrefaction were to go on in such a way that some objectionable gases were given off, they could not escape or become a nuisance; whereas in the case of uncovered tanks they might do so.

The starting of a new installation by working men, and the introduction of gear subsequently, would entail an enormous and unjustifiable expense. The beds, when they were built, had to be arranged so that they might be discharged and filled by the gear, which could not be introduced afterwards without cutting the concrete or breaking the work in pieces, and making very considerable alterations in dealing with the arrangements.

The "separate" system was referred to by Mr. Hudson, but the difficulty with regard to a separate system was entirely a matter of cost. The difference at the outfall works for bacterial treatment was hardly worth noting. The sewage was stronger, but the works were capable of dealing with exceedingly strong sewage, and that did not affect them at all. The expense of putting down two systems of sewerage, with the many separate connections that were required, would more than outweigh the slight saving that would be made on the smaller outfall works.

He thought that to condemn a system because it did not fulfil all the conditions that could possibly arise was manifestly unfair.

He was much interested by Mr. Grantham's reference to the scheme where a considerable amount (33 per cent.) of brewery refuse found its way into the sewers. He was very pleased indeed to learn that such a large proportion of foul manufacturing refuse could be effectively treated.

He thought the proportion of the capacity of the filter beds insisted upon by the Local Government Board regulations was three times, and not four times, the dry-

weather flow. The cost of £400 for the alternating gear which had been referred to was, he believed, a rather large amount.

Reference was made by Mr. Candy to the contact beds, and the remarks that he (Mr. Scoble) had made with regard to the Local Government Board conditions. He had based those remarks, as far as he could, on what actually had been done, and he was not aware that any other conditions had been permitted by the Board. Of course, if they did so, it would be necessary to make slight modifications.

The anaërobic process in the sewers, to which also the last speaker had referred, was not sufficient. In some districts, as he had himself seen, the sewage went down to the outfall works in a very foul state, with a large amount of solid matter in it. Complete anaërobic action liquefied all the solids, and when one saw large solid pieces being removed by a screen, one might be perfectly certain that the anaërobic process was not perfected in the sewers. 53 per cent. had been referred to, but he thought he was right in saying that the first bed removed 53 per cent. of the impurities, and the second bed removed 53 per cent. of the remainder. All the suspended matter was removed; and the chemical system never succeeded in taking out more than about 87 per cent. The matters in solution, as Mr. Moor had said, it was impossible to touch.

The question of emptying the detritus from the septic tank was a small one. The detritus chambers were now usually outside the tanks, and with a shovel it was very easy indeed to remove the slight accumulation of sand, and possibly in some cases mud. As he mentioned in

his Paper, the total solids in the sewage from a population of 1,500 people had been received at Exeter for $3\frac{1}{2}$ years, and of those solids the residue remaining had not caused any interference with the working of the tank. The detritus removed consisted, practically speaking, of road grit.

The Meeting then adjourned.

Paper 254.
No. 410.

UNDERGROUND WATER.

By JOHN SHIRESS WILL, Q.C., Associate.

Read at the Ordinary General Meeting of The Surveyors' Institution, *on Monday, March 12th*, 1900.

Thomas Miller Rickman (President) in the Chair.

The law with regard to the question of ownership in underground water first became definitely settled in the year 1859 by the case of *Chasemore* v. *Richards*, 7 House of Lords Cases, 349. The facts of that case are very interesting, and it will add to the interest if we call to mind the locality and the parties to that famous litigation. The plaintiff was the occupier of an ancient mill on the River Wandle, and for more than sixty years he and the preceding occupiers of the mill had used and enjoyed as of right the flow of the river for the purpose of working their mill. The defendant represented the members of the Local Board of Health of Croydon (as the local authority was then styled), who, for the purposes of supplying the town of Croydon with water, sank a well to the depth of 74 feet in their own land in the town of Croydon and about a quarter of a mile from the River Wandle, and pumped up large quantities of water from their well. By means of the well and the pumping the Local Board of Health diverted, abstracted, and intercepted underground water (but underground water only) that otherwise would have flowed and found its way into the

River Wandle, and so to the plaintiff's mill. The quantity so diverted, abstracted, and intercepted was sufficient to be of sensible value towards the working of the plaintiff's mill. The water so diverted was underground water flowing in no defined channel, but percolating or oozing through the soil more or less, according to the quantity of rain that might chance to fall. The learned lords who took part in the decision of that case were Lords Chelmsford, Cranworth, Wensleydale, Kingsdown, and Brougham. The judgment of the House of Lords was unanimous. They held that the principles which regulate the rights of owners of land in respect to water flowing in known and defined channels, whether upon or below the surface of the ground, do not apply to underground water which percolates through the strata in no known channels.

"The right to running water," said Lord Cranworth in the course of his judgment (p. 379), "has always been "properly described as a natural right, just like the right "to the air we breathe; they are the gifts of nature, and "no one has a right to appropriate them. There is no "difficulty in enforcing that right, because running water "is something visible, and no one can interrupt it with- "out knowing whether he does or does not do injury to "those who are above or below him. But if the doctrine "could be applied to water merely percolating, as it is "said, through the soil and eventually reaching some "stream, it would always be a matter that would require "the evidence of scientific men to state whether or not "there had been interruption, and whether or not there "had been injury. It is a process of nature not apparent, "and therefore such percolating water has not received "the protection which water running in a natural "channel on the surface has always received."

Of the judicial decisions prior to the case of *Chasemore* v. *Richards* it is only necessary to refer to two. The first is the case of *Acton* v. *Blundell* (1843), 12 M. & W., 324. The plaintiff in that case was the owner and occupier of a piece of land on which was a cotton-mill in a street called the Wallgate, in the town of Wigan, in which he carried on the business of a cotton-spinner. A former owner and occupier of the land and cotton-mill had sunk a well in such land and raised water for the working of the mill. The defendants sunk a coal-pit in their own land at about three-quarters of a mile from the plaintiff's well, and about three years after they sunk a second coal-pit at a somewhat less distance. The consequence was, that by the first pit the supply of water was considerably diminished in the plaintiff's well, and by the second it was rendered altogether insufficient for the purposes of the mill. The judgment of the Exchequer Chamber was delivered by Chief Justice Tindal. It was held that the action would not lie. "We think," said the Chief Justice at p. 352, "the present case, for the reasons "above given, is not to be governed by the law which "applies to rivers and flowing streams, but that it rather "falls within that principle which gives to the owner of "the soil all that lies beneath his surface. That the land "immediately below is his property, whether it is solid "rock, or porous ground, or venous earth, or part soil, "part water. That the person who owns the surface "may dig therein and apply all that is there found to "his own purposes at his free will and pleasure. And "that if in the exercise of such right he intercepts or "drains off the water collected from underground springs "in his neighbour's well, this inconvenience to his neigh-"bour falls within the description of *damnum absque* "*injuriâ*, which cannot become the ground of an action."

This case and this judgment were cited with approbation in the House of Lords in the case of *Chasemore* v. *Richards.*

The other case is that of *Dickinson* v. *Grand Junction Canal Company* (1852), 7 Exch., 282. In that case the plaintiff, who owned certain paper mills, sought an injunction to restrain the defendants from abstracting by means of a well (1) water after it had formed part of a stream, and (2) percolating water which would, but for the well, have found its way into the stream. The decision really turned upon the construction of the terms of an agreement and of a special Act of Parliament. The judgment of the Court of Exchequer was delivered by Pollock, C.B. He held that the millowner had a right of action as to the first and also as to the second point. But it was not necessary for the purposes of the case to determine the common law right of the parties as to the second point, and this is clearly pointed out by Wightman, J., who delivered the opinion of the consulted judges in *Chasemore* v. *Richards* (see 7 H. L. Cases at page 369). Since the decision of the House of Lords in that later case, the decision of the Court of Exchequer cannot be considered as of value on the question of the common law rights of parties regarding underground percolating water.

Right of a Landowner to drain his Land.

An owner of land has an unqualified right to drain it for agricultural purposes in order to get rid of mere surface water, that supply of water being casual and its flow following no regular or defined course. Therefore a neighbouring proprietor cannot complain that he is thereby deprived of such water which otherwise would

have come to his land.—*Rawstron* v. *Taylor* (1855), 11 Exch., 369. (See further *Jordeson* v. *Sutton, Southcoates, and Drypool Gas Company*, referred to later.)

Right of a Landowner to appropriate Surface Water.

The above case was soon followed by that of *Broadbent* v. *Ramsbotham* in the same Court (1856), 11 Exch., 602, which decided that a landowner has a right to appropriate surface water which flows over his land in no definite channel, although the water is thereby prevented from reaching a watercourse which it previously supplied and which had for more than fifty years worked the plaintiff's mill. Baron Alderson, in delivering the judgment of the Court in that case, says (p. 615): "No "doubt all the water falling from heaven and shed upon "the surface of a hill, at the foot of which a brook runs, "must by the natural force of gravity find its way "to the bottom, and so into the brook; but this does "not prevent the owner of the land on which this "water falls from dealing with it as he may please, "and appropriating it. He cannot, it is true, do so if "the water has arrived at and is flowing in some "natural channel already formed. But he has a per-"fect right to appropriate it before it arrives at such a "channel. In this case a basin is formed in his land, "which belongs to him, and the water from the heavens "lodges there. There is here no watercourse at all. If "this water exceeds a certain depth it escapes at the "lowest point, and squanders itself (so to speak) over "the adjoining surface. The owner of the soil has "clearly a right to drain this shallow pond and to get "rid of the inconvenience at his own pleasure."

Examination of the more important Cases which have followed Chasemore *v.* Richards.

The principles laid down in the case of *Chasemore* v. *Richards* have never been shaken or departed from. In every case that has arisen since then the difficulty has been, not whether the decision in *Chasemore* v. *Richards* was right, but rather its application to the facts of the particular case. An examination of the more important of the decisions will illustrate this.

In *Dudden* v. *Clutton Union* (1857), 1 H. & N., 627, there was a certain spring from which the water flowed in a natural stream, which turned the plaintiff's mill. The Clutton Union Workhouse was situated about a mile away from this spring, and the guardians desired to get a supply of water from it for the workhouse. Having acquired a licence from the owner of the land on which the spring rose, they sank a tank into the ground and caught the water as it rose from the earth. What the defendant here did was, not to sink a well and so obtain percolating underground water, but to take the water after it had arrived at the spring-head and prevent it from going down, although it had not then actually entered what may be called the channel from the top of the spring. The plaintiff therefore succeeded in his action.

In *Reg.* v. *Metropolitan Board of Works* (1863), 3 B. & S., 710, it appeared that part of an estate at Lewisham was situate upon a deep bed of gravel, which itself was embedded in a basin of clay extending under it and the lands adjoining. In the lower part of the property was a pond of the depth of four feet formed in the gravel bed, which had existed there from time immemorial, and in which the water rose naturally in a considerable quantity from several powerful springs at the bottom of

it, and thence overflowed the western edge of the clay basin and formed a rivulet, which ran through the grounds and supplied ornamental ponds therein, and was used for the cattle and for supplying the garden of the house. The Metropolitan Commissioners of Sewers (a body whose duties and liabilities were afterwards, by statute transferred to the Metropolitan Board of Works), in constructing a sewer along and under the centre of a highway, cut through the bed of gravel and the basin of clay which enclosed it, at a distance from the estate varying from 17 to 153 yards. The immediate effect was to drain the springs rising in the bed of gravel, and prevent them from finding their way into the pond, so that it became dry and the rivulet and other ponds ceased to be supplied with water. The Metropolitan Sewers Act, 1848 (11 & 12 Vict., c. 112), s. 50, contained certain provisions for compensating parties prejudicially affected. It was held that, independently of the statute, the owner was not entitled to compensation, as the effect of the sewer was only to intercept underground water which would otherwise rise into the pond. On the same point see *Brain* v. *Marfell*, 41 L. T. N. S., 455; 44 J. P., 56.

In the case of *Grand Junction Canal Company* v. *Shugar* (1871), L. R. 6, Ch. 483, the Grand Junction Canal Company, in pursuance of powers given by their Acts, had, many years before the litigation arose, intercepted a stream flowing from a pond called the Silk Mill Pond, near Tring, and caused the water to flow into a branch of the canal. The Local Board of Health of Tring made a drain near to and below the Silk Mill Pond. The case did not turn upon the question of the abstraction of underground percolating water. Lord Hatherley, L.C., found on the evidence that, owing to the faulty con-

struction of the drain, water was directly abstracted from the running stream. It was upon this point that the injunction was granted. The argument of Sir Roundell Palmer, Q.C., for the Canal Company is thus reported: "The Local Board say that the damage has "been done by intercepting subterranean springs, which "they have a right to do; but we say that, though we "perhaps lose some water in that way, we lose more "by their drawing off the surface water." The Lord Chancellor, in giving his judgment, said: "In this case "there is, *ex concessis*, a defined channel in which this "water was flowing, and I think the evidence is clear "that some of it is withdrawn by the drain which the "Local Board have made .... I do not think *Chasemore* "v. *Richards*, or any other case, has decided more than "this, that you have a right to all the water which you "can draw from the different sources which may "percolate underground; but that has no bearing at all "on what you may do with regard to water which is in "a defined channel, and which you are not to touch. If "you cannot get at the underground water without "touching the water in a defined surface channel, I "think you cannot get at it at all." In regard to the facts of this case, Vaughan Williams, L.J., observed in *Jordeson* v. *Sutton, Southcoates, and Drypool Gas Company* (1899), 2 Ch., at p. 251: "With regard to *Grand* "*Junction Canal Company* v. *Shugar*, it seems tolerably "clear from the longer report of this case in the *Law* "*Times* (24 L. T., 402) that Lord Hatherley treated the "case as one in which there was a direct tapping of an "overground stream flowing in a defined channel, and "not merely a withdrawal of percolating underground "water." And North, J., in *Bradford Corporation* v. *Pickles* (1894), 3 Ch., at p. 70, in dealing with the case

of *Grand Junction Canal Company* v. *Shugar*, says: "But, " as I read that case, it was one in which subterranean " water had passed into a defined channel, from which it " was subsequently abstracted."

The case of *Ballacorkish Silver Lead and Copper Mining Company* v. *Harrison* (1873), L. R., 5 P. C., 49, was decided in the Privy Council on appeal from the Court of Chancery in the Isle of Man. The appellants, under a lease from the Crown, were entitled to the minerals under certain lands occupied by the respondents. They sunk certain shafts and enlarged others and worked the mines. The damage complained of by the respondents was the withdrawal by percolation into the mine of water which it was averred would otherwise flow into, and, having flowed into, would have been retained in the wells or springs on the respondents' land. It appears that a new level had been driven by the appellants under the respondents' land about two years before the litigation, and that from that time the wells and springs on the respondents' land were dried up. It does not appear to have been denied that if the litigant parties had been the respective owners of two adjacent closes, and one of them mining in his own land had drawn off by natural percolation through the soil the water which fed a spring or well on the land of the other, no action would have lain, and that the cases of *Acton* v. *Blundell* and of *Chasemore* v. *Richards* would have governed the matter (see per Lord Penzance at page 60). It was sought, however, by the respondents to distinguish that particular case on certain very special grounds, viz., that the appellants represented, through the Crown, the lord of the manor, and that the respondents were customary tenants of the manor; and that the lord, having granted the surface to the customary tenants,

could not lawfully derogate from his own grant by so working the mines as to inflict damage of this description on the tenants. The judgment of the Privy Council was in favour of the appellants in the particular circumstances of the case.

In the case of *Bunting* v. *Hicks* (1894), 70 L. T., 455, it appeared that the plaintiff was an owner of property through which a stream of water flowed. The defendant was the owner of land higher up the same stream, and the stream rose in a spinny on his land. The defendant constructed on the lower side of this spinny a large pond, into which he collected the water which rose in that spinny, and which, theretofore, had flowed thereout and found its way to the land of the plaintiff. From this pond the defendant, a brickmaker, took and carried away considerable quantities of water—at the rate of about 30 cartloads a day—for the purposes of brickmaking. Here it is obvious that there was no taking of underground percolating water, but of water after it had come to the surface. The Court of Appeal accordingly granted an injunction.

In the case of *Corporation of Bradford* v. *Pickles* (1895), A. C., 587, it appeared that the Bradford Corporation derived a supply of water from a large spring known as Many Wells, which issues from the ground 20 or 30 yards to the east of Doll Lane, and also from a stream to the south of Many Wells, which had its origin in a smaller spring on the respondent's land, close to Doll Lane, at a point known as the Watering Spot from which the water runs in a definite channel into Trooper Farm. It was an admitted fact in the case that the statutes, to the benefit of whose provisions the Bradford Corporation were now entitled, made no provision for compensating the defendant in the event of any right or

interest of his being prejudicially affected. In 1892 the respondent began to sink a shaft on his land adjoining the lane and to the west of Many Wells Spring, and also to drive a level through his land for the professed purpose of draining the strata with a view to the working of his minerals. These operations had the effect of occasionally discolouring the water in the Many Wells Spring, and also of diminishing to some extent the amount of water in that spring and in the stream coming from the Watering Spot; and it became apparent that, if persevered in, they would result in a considerable and permanent diminution of the water supply obtainable from these sources. The Bradford Corporation sought an injunction to restrain the defendant. The House of Lords (Lord Halsbury, L.C., Lords Watson, Ashbourne, and Macnaghten) affirming the decision of the Court of Appeal decided in favour of the defendant. The Lord Chancellor said: "The acts done or sought to be done "by the defendant were all done upon his own land, "and the interference, whatever it is, with the flow of "water is an interference with water which is under-"ground and not shown to be water flowing in any "defined stream, but is percolating water, which, but "for such interference, would undoubtedly reach the "plaintiffs' works, and in that sense does deprive them "of the water which they would otherwise get." It will be noted, in passing, that the House of Lords decided in this case (and such a decision was in no way new, for many decisions to the like effect have been given in the past) that if a man has a right to do a particular act, his motive in doing so is immaterial and cannot render the act unlawful.

The case of *Mostyn* v. *Atherton* (1899), 2 Ch., 360, related to St. Winifred's Well in the Urban District of

Holywell, in Flintshire. It was a famous well, and had for many centuries been, and still was, visited by pilgrims, who drank the water and bathed in it. A natural stream flowed down from St. Winifred's Well to the estuary of the River Dee. The Holywell Urban District Council, who were in possession of the land from which the water issued, granted to a certain firm the sole and exclusive right to abstract and use water at certain times from St. Winifred's Well for the purpose of storing, making up in casks, jars, and bottles, and treating, preparing, and selling the same, with the right to use existing pipes tapping the well, which had been inserted by the promoters of a waterworks company formerly projected, but now abandoned. The effect of this abstraction of the water would be to diminish the flow of water past the works of the riparian proprietors on the banks of the stream. The right thus sought to be conferred was not to sink a well and so obtain and divert percolating water, but to take water from the spring itself. Mr. Justice Byrne, following the case of *Dudden* v. *Clutton Union*, granted an injunction.

What is a Known and Defined Channel?

In the course of his judgment in *Chasemore* v. *Richards*, Lord Chelmsford uses the expressions "certain ' and definite course," and "a certain and defined course, " whether in an open visible stream or in a known sub- " terranean channel," as contrasts or antithises to "water " percolating through underground strata, which has no " certain course, no defined limits, but which oozes " through the soil in every direction in which the rain " penetrates" (p. 374). And in another part of his

judgment (p. 375) he draws the distinction "between "water flowing in a definite channel and water, whether "above or under ground, not flowing in a stream at all, "but either draining off the surface of the land or "oozing through the underground soil in varying "quantities and in uncertain directions, depending upon "the variations of the atmosphere."

Lord Chelmsford further said, at p. 374: "I agree "with the observation of Lord Chief Baron Pollock in "*Dickinson* v. *Grand Junction Canal Company*, that 'if "'the course of a subterranean stream were *well known*, "'as is the case with many which sink underground, "'pursue for a short space a subterraneous course, and "'then emerge again, it never could be contended that "'the owner of the soil under which the stream flowed "'could not maintain an action for the diversion of it "'if it took place under such circumstances as would "'have enabled him to recover had the stream been "'wholly above ground.'"

Case of an Underground Channel held to be "Defined," but not thertofore "Known."

Two Irish cases may here be cited as illustrating what may be considered as a known or defined underground channel. The first is the case of *Ewart* v. *Belfast Poor Law Guardians* (1881), 9 L. R. Ir., 172. The facts as stated by Chief Baron Palles, at p. 177, were as follows: "The plaintiff and one Andrew Clements are "respectively the owners and occupiers of two adjoining "parcels of land situated upon the eastern slope of "Cavehill, in the county of Antrim. The plaintiff's "land is at a lower level than Clements', and from its "surface (at a distance of from 30 to 40 feet from

" Clements' lands) water of great purity and of con-
" siderable value for bleaching purposes formerly issued,
" and thence flowed through the plaintiff's land in a
" defined surface channel. The defendants, as the sanitary
" authority for Ligoniel, made borings with the consent
" of Clements upon his lands for the purpose of obtain-
" ing a sufficient supply of water for that village, and
" ultimately found a copious underground flow, estimated
" as capable of yielding 70,000 gallons a day. Trenches
" were then excavated in Clements' land, which prevented
" this underground water flowing down the hill in the
" direction of the plaintiff's land, and thereupon the
" spring in question ceased to flow. There can be no
" doubt that some of the water thus diverted by the
" defendants would otherwise have flowed to the plain-
" tiff's lands, and emerged at the spring in question."
There was conflicting expert evidence on the question whether the water diverted used to flow in a defined channel underground " in the sense of a channel capable
" of being ascertained and defined by opening the ground
" by excavation."

The Lord Chief Baron (p. 185), without deciding the question of fact, said: " I feel myself bound for
" the purpose of my decision to assume that it has been
" established as a matter of fact that the water did
" flow in a channel defined in the sense which I have
" mentioned. I assume therefore that the water perco-
" lating through the strata of the upper portions of
" Clements' plot ultimately finds its way to the point
" upon Clements' land designated upon the model; that
" it there enters a subterranean channel by which it is
" conducted to, and emerges as a spring at a point in, the
" plaintiff's land. This water had not previously flowed
" upon the surface in the form of a continuous stream in

" a defined channel. The channel, if it existed at all, " has been ascertained only by means of deep excava- " tions upon Clements' lands, the making of which by the " plaintiffs without Clements' consent would have been " an act of trespass." Elsewhere (p. 184) the Chief Baron lays stress on the fact: " The 'well-defined channel' thus " referred to is one which was not only unknown at the " time of the acts complained of, but was incapable of " being ascertained by the exercise of reasonable dili- " gence." Then, having quoted the cases of *Dickinson* v. *Grand Junction Canal Company* and *Chasemore* v. *Richards*, the Chief Baron proceeds to say at p. 186: " Now the present case is intermediate between the two " I have last mentioned. It is that of water flowing " in a course which in a sense may be said to be certain " and defined, but which is not an open visible stream " nor a *known* subterranean channel;" and he concluded by saying (p. 195): " I am of opinion that the principle " of *Chasemore* v. *Richards* applies to all subterranean " water which does not flow in a defined and known " channel."

Deasy, L.J., after reviewing the evidence, expressed the opinion that the plaintiff had failed to prove that there existed at the time of the excavations any definite subterranean course by which the water flowed, and he added (p. 204): " In my view it is not proved that there " was a *defined* channel, not to say a *known* one, and " there is nothing to prevent the defendants from apply- " ing this water to the sanitary purposes which they " contemplate."

FitzGibbon, L.J., in his judgment said (p. 205): " It " is not possible to say with certainty whether the course " through which the water has flowed since the open- " ing of the ground was, before that opening, in any

"sense a 'defined channel' or was only a part of the "natural reservoir which, until it was tapped by the "defendants, found an outlet upon the plaintiff's land. "I assume, however, for the same reason as my Lord "Chief Baron (namely, that if the point was material, "further inquiry should be directed), that the water did "flow underground, for some distance at least, in a "definite, that is, a contracted and bounded channel and "stream, but its course was *unknown, invisible, and "undefined by human knowledge.* This, to my mind, is "the only sense in which the words 'defined channel' can "be used in deciding upon rights. In my opinion it is "impossible to recognise a natural right which would sub-"ject the lands of another to the burden of maintaining an "unknown flow of water (whatever be the geological "character of its channel) without introducing every "difficulty which has already prevailed to prevent the "recognition of such a right in respect of 'percolating' "water strictly so called. It appears to me to be "impossible to find the test of the existence of either "natural rights or acquired easements in *ex post facto* "geological investigations; yet it is by some such means "alone that any difference could be discovered between "oozing or percolating water and water running through "or collecting in underground fissures."

Lord O'Hagan, L.C., at p. 177 stated that he concurred in the judgment of FitzGibbon, L.J. The judgment of the Court of Appeal was therefore in favour of the Belfast Poor Law Guardians.

Case of an Underground Channel both "Defined" and "Known."

The next of the Irish cases is that of *Black* v.

Ballymena Township Commissioners (1886), 17 L. R. Ir., 459. It was decided by Vice-Chancellor Chatterton. In the course of the case the decision in *Ewart* v. *Belfast Poor Law Guardians* was very much discussed. It appeared that the Ballymena Commissioners, who were the urban sanitary authority for the town of Ballymena, had obtained a Provisional Order (confirmed by Parliament) to abstract water from the River Quolie, in accordance with certain plans and specifications, for the purpose of supplying the town of Ballymena with water. The works were begun, but owing to an accident were discontinued, and the Commissioners sought for some temporary means of obtaining a supply of water. By arrangement they made an excavation in the neighbourhood of the River Quolie, from which a supply of water became obtainable. The plaintiffs, who were millowners on the River Quolie, and therefore entitled to its free and uninterrupted flow, made a twofold complaint. First they said that the excavation tapped water which was not underground, percolating, or oozing water, but which was water flowing through a certain defined underground channel, and secondly, they complained that the operations of the Commissioners drew water direct from the River Quolie. Upon the first point there was much evidence both ways. In the result the Vice-Chancellor found as a fact that there formerly existed along the place of the alleged underground defined channel "a known and visible surface channel," and that "this surface channel" had become filled up with stones and soil coming down from the high ground adjoining it, but that the water continued to flow under the stones and other material through a defined channel. On that point therefore he held that the case of *Chasemore* v. *Richards* did not apply, because

here was a case in which a known and defined underground channel had been tapped. On the second point he decided that as a matter of fact the cutting of the trench close to the banks of the Quolie abstracted water actually flowing in the river. He therefore granted an injunction.

The case is the more valuable for the light which is thrown upon the earlier decision in *Ewart's Case*. Upon the question of what is a "known" or "defined" channel, the Vice-Chancellor said: "So far the law on the subject "is clear, but a difficulty appears still to exist as to the "application of this rule by reason of the use of the "word 'known' in connection with the word 'defined,' "and it does not seem to have been sufficiently laid "down as yet what the nature or extent of the know-"ledge is which must be proved to exist in order to con-"stitute the riparian relation. It cannot mean that a "channel should be visible throughout its course, which "would be an impossibility from the very fact of its "being subterranean."

"In considering this question, the knowledge required "cannot be reasonably held to be that derived from a "discovery, in part by excavation exposing the channel, "but must be a knowledge, by reasonable inference, from "existing and observed facts in the natural or rather the "pre-existing condition of the surface of the ground. "The onus of proof lies of course on the plaintiff claim-"ing the right, and it lies upon him to show that with-"out opening the ground by excavation, or having "recourse to abstruse speculations of scientific persons, "men of ordinary powers and attainments would know, "or could with reasonable diligence ascertain, that the "stream, when it emerges into light, comes from and "has flowed through a defined subterranean channel.

" The instance given in some of the cases of a stream " sinking underground when it reaches a certain place " and pursuing for a short space a subterraneous course, " and then emerging, shows plainly the kind of know- " ledge required. No one knows, as a matter of fact, " that it flows underground from the one point to the " other in a defined channel, or indeed even that it is the " same stream; but our reason, grounded on our know- " ledge of ordinary natural laws, and on the impossibility " or great improbability of the phenomena being other- " wise accounted for, leads to an inference of fact, " amounting practically to knowledge, that it is the " same stream, and that it has flowed underground in a " defined channel.

" The question of fact to be determined in such cases " is, whether the water appearing at a given point and " then becoming a surface stream comes from subter- " raneous percolation or oozing, or flows in a defined " channel or watercourse underground to the point " where it so appears; and for the decision of that ques- " tion it lies on the party asserting his right to the flow " to show affirmatively, not as a matter of fact, but as a " reasonable inference from known facts, that the water " comes to the place of emergence, not by percolation or " oozing, but in a defined channel. Beyond this I do not " think proof of knowledge can be required without " destroying the claim of right to the flow of under- " ground streams altogether."

What is a "Stream."

In the case of *McNab* v. *Robertson* (1897), A. C., 129, in the House of Lords, the primary question was whether water percolating discontinuously through or along strata can properly be described as a "stream."

A lessor demised by lease a distillery, cottages, 13½ acres of land with two ponds, "together with right to "the water in the said ponds and in the streams leading "thereto." The lease contained a warrandice clause (covenant for title). The lessor afterwards sunk a tank on ground outside the demised premises, and drew off, from marshy ground, percolating water which would have found its way eventually into one of the ponds. The lessee of the distillery complained of this, for it lessened the water in the ponds, and the question resolved itself into whether the landlord was derogating from his lease, which included "right to the water in "the said ponds and in the streams leading thereto." Lords Watson, Shand, and Davey held (affirming the decision of the Court of Session in Scotland) that the water percolating through the ground towards the pond, was not water in any "stream" leading to the pond. The Lord Chancellor (Lord Halsbury) differed from this view, because, on the question of the construction of the lease, he held that, as between the lessor and lessee, all the sources of supply of the ponds were included in the words "water in the said ponds, and in the streams "leading thereto." Lord Watson in the course of his judgment said: "According to my apprehension the "word 'stream,' in its primary and natural sense, "denotes a body of water having, as such body, a con- "tinuous flow in one direction. It is frequently used to "signify running water at places where its flow is rapid, "as distinguished from its sluggish current in other "places. I see no reason to doubt that a subterraneous "flow of water may in some circumstances possess "the very same characteristics as a body of water "running on the surface; but in my opinion water, "whether falling from the sky or escaping from a

" spring, which does not flow onward with any con-
" tinuity of parts, but becomes dissipated in the earth's
" strata, and simply percolates through or along those
" strata until it issues from them at a lower level,
" through dislocation of the strata or otherwise, cannot
" with any propriety be described as a stream. And I
" may add that the insertion of a common rubble or
" other agricultural drain in these strata, whilst it tends
" to accelerate percolation, does not constitute a stream,
" as I understand that expression." The Lord Chancellor, referring to the expression "streams," said (p. 143.): " I think that the root idea is water in motion from " one place to another, as distinguished from stagnant " water."

Fouling Neighbouring Wells.

In the case of *Womersley* v. *Church* (1867), 17 L. T. N. S., 190 it was decided by Lord Romilly, M.R., that the owner of a well is entitled to an injunction to restrain his neighbour for so keeping and using a cess-pool on his land as thereby to pollute the water in the well. The point which was here made for the defendant was, that the water which supplied the well was underground percolating water not flowing in any defined channel, and that the plaintiff had no title to it until it reached his well and so became impounded, and that if it was polluted on the way before it was so impounded the plaintiff had no cause to complain. That contention, however, did not prevail.

A later case on this subject is the more interesting from the instructive judgment of *Lindley*, L.J. (now M.R.). It is the case of *Ballard* v. *Tomlinson* (1885), 29 Ch. D., 115. The plaintiff was a brewer at Brentford, in Middlesex, and the owner of land and premises there,

where he and his predecessors had for years carried on the business of brewers. From 1849, until a few years before 1882, when this action was commenced, the water used for the purpose of the brewery was drawn from a deep well upon the brewery premises. This well was sunk through the London clay, and the sand immediately below into the chalk stratum to a depth of about 300 feet below the surface. Both the sand and the chalk were water-bearing strata, from which the water found its way, by natural pressure, into the well, and from thence was pumped up for the use of the plaintiff's brewery. The defendant Tomlinson was the owner of land and premises adjoining the plaintiff's, and only separated from the brewery by a public highway. A few years before this action the defendant Tomlinson erected a printing-house on his premises which he let to the other defendant, Jackson, who occupied it for his business of printing. There was a deep well also on the defendants' land going down to about the same depth as the plaintiff's well, the distance between the two being about 99 yards. The level of the surface of the ground at the defendants' well was about 10 feet higher than that at the plaintiff's well. The defendant's well had formerly supplied water to a distillery which had once been carried on at the defendants' premises; but the distillery had been discontinued in 1874, when the defendant Tomlinson constructed a drain from a water-closet attached to the printing-house, by means of which the sewage of the closet and the refuse of the printing-house found its way into the defendant's well. The two wells had a common source of supply of water, which percolated underground from the defendant's land to that of the plaintiff, and there was evidence that the sewage and refuse which so came into the defendants' well polluted

such common source of supply to such an extent that the plaintiff was unable to use the water from his well for brewing purposes, and that he had thereby sustained damage. It was held by the Court of Appeal, reversing the decision of Mr. Justice Pearson, that although until the plaintiff had appropriated the percolating water by impounding it in his well he had no property in it, and although he could only appropriate the water by the artificial means of pumping, yet that he had a good cause of action and was entitled to an injunction. To appreciate the *ratio dicidendi* in this case, it is very instructive to read the judgment of Lindley, L.J. "If a man chooses to "put filth on his land he must take care not to let it escape "on to his neighbour's land: *Tenant* v *Goldwin* (1 Salk: "21, 360); and not to let it poison the air which reaches "it: Comyn's Dig. (Action on the case for Nuisance, "A.). So if a man chooses to poison his own well he must "take care not to poison waters which other persons "have a right to use as much as himself. To hold the "contrary, on the ground that the water is not their "property until they get it, and that it is poisoned be-"fore they get it, is to take an inadequate view of the "subject, and to overlook the fact that the law of nuis-"ance is not based exclusively on rights of property. "Light is not property, and yet if a man has a right to "have it come to his windows he can maintain an action "against those who prevent it from so coming. So air "is not property, but a man who poisons the air which "another has a right to breathe commits an actionable "wrong."

The learned judge then, after referring to *Womersley* v. *Church*, *supra*, *Hodgkinson* v. *Ennor* (1863), 4 B. and S., 229, and *Whaley* v. *Laing* (1858), 3 H. and N., 675 continued: "These decisions show that *primâ facie* one

" man has no right to foul water which another has a " right to get; and if he has a right to get it, the fact " that by pumping he draws it partly from the de- " fendant's land is immaterial " (pp. 126, 127). See also *Pennington* v. *Brinsop Hall Coal Co.* (1877), 5 Ch. D. 769.

The law thus settled was followed in the later case of *King* v. *Oxford Co-operative Society* (1884), 51 L. T., 94, where paraffin oil leaked from barrels stored on the defendants' premises and found its way into the plaintiff's well.

Question of Right to Support by Underground Water.

It was settled by the decision of the House of Lords in *Backhouse* v. *Bonomi* (1861), 9 H. L. Cas., 503, that an owner of land has a right at common law to support from the adjacent and subjacent *soil*. This right does not depend upon prescription, but is an inherent right in the property. That being so, the question arose whether an owner of land has any such right at common law to the support of underground water. The Court of Exchequer decided that there was no such common law right of support, and the Court of Exchequer Chamber, on appeal, affirmed that decision. *Popplewell* v. *Hodkinson* (1869), L. R., 4 Ex., 248.

In view of later decisions it becomes desirable to examine the facts of this case. The defendants had made excavations to a great depth, for the purpose of the foundation for a church about to be built, on wet and spongy land. The consequence was to let down certain cottages of the plaintiff, built about two years previously on adjoining land of the same character. Before erecting his cottages, the plaintiff had done nothing with the land

either by draining or otherwise, to make it more suitable to bear the weight of the cottages. By the excavation, the plaintiff's land was drained and it subsided, and the cottages were cracked and injured. The land would have subsided even if no buildings had been erected on it. The judges who heard the case were Lord Chief Justice Cockburn and Justices Keating, Lush, Hannen, and Brett. The judgment of the Court of Exchequer Chamber was delivered by Cockburn, L.C.J. He said: "We are all of "opinion that the judgment of the court below ought to "be affirmed. Although there is no doubt that a man "has no right to withdraw from his neighbour the support "of adjacent soil, there is nothing at common law to pre- "vent his draining that soil, if for any reason it becomes "necessary or convenient for him to do so." It may be added that a point was made in the course of the case that the land on which the excavation was made and the land of the plaintiff originally belonged to the same owner, and that he conveyed both in 1835 for building purposes subject to a chief rent. The purchaser in 1864 disposed of the plaintiff's portion for similar purposes, and the various conveyances contained covenants on the part of the grantees respectively to build a sufficient number of messuages or dwelling-houses to secure the rent reserved. Lord Chief Justice Cockburn on this point said: "Although "it is true that the plaintiff's land and the land which "has been drained once had a common owner, and "although the plaintiff's land was, in a certain sense, "conveyed to him for building purposes, at all events so "far as the stipulation to build to secure due payment of "the perpetual rent-charge goes, yet there is nothing to "warrantthe inference that there was an implied con- "dition in the grant to prevent the defendant from doing "with the adjacent land what was really incidental to its

" ordinary use, namely, draining it in order to render it " more capable of being adapted to building purposes."

In an earlier case in the House of Lords, namely, *Elliot* v. *North Eastern Railway Company* (1863), 10 H. L. Cas., 333, it had been decided that a railway company, which had purchased a piece of land for the construction of their line and a railway bridge, were not entitled to the additional support furnished by the water in a drowned mine.

The decision in the case of *Popplewell* v. *Hodkinson* was very much discussed in the later case of *Shelfer* v. *City of London Electric Lighting Company* and *Meux's Brewery Company* v. *City of London Electric Lighting Company* (1895), 1 Ch., 288. The plaintiffs in these actions were respectively the owners and the tenant of a public-house called the Waterman's Arms, situated at Bankside, on the River Thames. The defendants, in 1891, acquired land adjacent but not contiguous to the Waterman's Arms, and situate on the western side thereof, and they erected on the land so acquired sheds, engine-houses, a shaft, and all the buildings and machinery necessary for forming a large central station for the purpose of supplying electric light over a considerable area. Foundations for the works were sunk from 25 to 30 feet below the surface of the ground. The plaintiffs complained of vibration and noise and a crack in the wall which extended through two stories, and was in some places two inches in width; and a hearthstone was also cracked. The defendants contended if there had been subsidence it was due to the abstraction of water owing to the excavations which they had made, and they contended that there was no right of action for diminution of support by abstraction of subterranean water, and they relied on *Popplewell* v. *Hodkinson* (p. 291). In

reply, it was argued for the plaintiffs that *Popplewell* v. *Hodkinson,* though an authority as regards natural support, had nothing to do with easement or grant, which was what the plaintiffs relied upon, and Mr. Justice Kekewich in deciding the point said (p. 301): "The case ' cited on this point is *Popplewell* v. *Hodkinson*; but, as " was pointed out by Mr. Warmington, that case does not " depend on grant. Here I have a case of grant—that is " to say, I have a case of a statutory right by a prescrip- " tion equivalent to grant—and if the defendants, being " the adjoining owners, have deprived Meux's Brewery " Company of their support, the Brewery Company can " sue them on that ground, notwithstanding, as it seems " to me, that they have withdrawn that support by with- " drawing the water in the soil. There is no right of " action against them for withdrawing the water, which " is only percolating through the soil, and does not run " through a definite channel. Meux's Brewery Company " could not claim on that ground. But if by reason of " doing that which is lawful, that is to say, withdrawing " the water, the defendants have done that which is unlaw- " ful, withdrawn the support, then the right of action " seems to follow." Justice Kekewich in the result decided that what the defendants had done amounted to a nuisance at common law, but he refused an injunction, thus leaving the plaintiffs to their claim for damages. The case ultimately went to the Court of Appeal, and there the sole question was whether or not there should be an injunction, which they granted. Nothing turned upon the question of support.

Running Silt.

Though you may abstract underground percolating water from your neighbour's land in the way before

indicated, an important qualification arises where you cannot do this without taking along with the water, soil, such as running silt or sand, if you thereby cause your neighbour's land to subside. This point arose in the case of *Jordeson* v. *Sutton, Southcoates, and Drypool Gas Co.** (1899), 2 Ch., 217. The defendants in this case were a gas company duly authorised by a special Act to erect on certain lands, shown on the deposited plan and described in the schedule, gasholders and other works for the manufacture and storage of gas. Under these powers they proceeded to excavate the land in question for the purpose of erecting the gasholder. In doing so they penetrated a large and extensive stratum of what is called "running silt," consisting of fine sand or silt and stagnant water, the expression "running" merely indicating that if the stratum was cut into, the silt would run through the opening made. In their natural and undisturbed state the component parts of the stratum were uniform throughout; there was no sediment of silt at the bottom, and the water was found at all parts of the stratum. This stratum was well known to persons acquainted with the geological structure of the earth at Hull, and was, it appeared, a constant source of trouble to all who had to make deep excavations into it for building and other purposes. It extended for some miles both in length and breadth; it was some 6 feet in thickness and commenced some 22 feet below the surface of the land on which the defendants' works and the plaintiff's houses stood. The boundary between the plaintiff's land and the defendants' land was about 6 feet from the excavation. The plaintiff's houses were from 7 to 12 feet from the boundary. The defendants excavated to a depth of 37 feet from the surface. They took the precautionary

* *Professional Notes* of The Surveyors' Institution, vol. ix. pp. 230, 422.

measure of constructing a temporary barricade to seal up the stratum and prevent the silt from falling in. The excavation was kept dry by frequent pumping, the effect of which was to cause large quantities of water, together with some silt from the stratum under the plaintiff's land, to ooze through the interstices in the barricade into the excavation. This water again had to be got rid of by pumping, some of the silt coming away with it in the process. It was not alleged that the plaintiff's houses by their weight caused the land to subside more than it would have done without them. As to the consistency of the stratum in question, the evidence went to show that the quantity of water in it varied from time to time according to the rainfall, the proportion of water to silt or sand varying, according to different witnesses, from one-tenth of water to nine-tenths of silt, or from one-fifth of water to four-fifths of silt, all the witnesses agreeing that the silt always greatly preponderated over the water. In draining their excavation the defendants withdrew a large quantity of the running silt from under the plaintiff's land, and thus caused a subsidence of the surface with consequent structural injury to his houses. There were two points decided by the Court of Appeal in this case which it is desirable to keep quite distinct for our present purpose. The first point I will deal with at once, and it is this: The defendants' special Act incorporated as is usual, the Gasworks Clauses Acts, 1847 and 1871. Both of these Acts contain a nuisance clause providing that "Nothing "in this or the special Act contained shall prevent the "undertakers from being liable to an indictment for "nuisance or to any other legal proceeding to which "they may be liable in consequence of making or sup-"plying gas." The Court of Appeal decided that the works of the defendants constituted a nuisance within

the meaning of those Acts, and that "nuisance" included nuisance to private individuals as well as nuisance to the public. The second point decided is, however, a more important one for our present occasion. A majority of the three judges (*Lindley, M.R.*, and *Rigby, L.J.*) decided that the plaintiff's land was supported, not by a stratum of water, but by a bed of wet sand or running silt; and that as the defendants had caused the subsidence of the plaintiff's land by withdrawing this support, they had committed an actionable nuisance at common law entitling the plaintiff to damages. They therefore held that the decision in *Popplewell* v. *Hodkinson* was inapplicable as dealing only with support by water. *Vaughan Williams, L.J.*, upon his view of the facts, held that the subsidence had been caused by the withdrawal of subterranean water support, and therefore that *Popplewell* v. *Hodkinson* applied. The difference between the judges seemed to be upon the question of fact rather than upon any question of law. In other words, the question was whether what was withdrawn was in fact land support, or water support.

The same point arose in America in the case of *Cabot* v. *Kingman* (1896), 166 Mass. Rep., 403. The case was argued in the Supreme Court of Massachusetts before seven judges. A majority of four to three of the judges decided in favour of the view adopted by our own Court of Appeal, *Field, C.J.*, observing: "Whatever may "be true of percolating waters, we think that the "defendants had no right to take away the soil of the "plaintiff in land which they had not taken under the "statutes, and that it is immaterial that the soil was "removed by means of pumps from the trench into "which it had fallen by its own weight, or had been "carried by percolating water. We are unable to dis-

" tinguish the case from one where the soil falls in from " the surface in consequence of an excavation in the ad- " joining land. The plaintiff, if the facts be as he offered " to prove, had been deprived of the lateral support to " his land, in consequence of which the quicksand has " run from under the surface of his land into the trench, " and has been removed by means of pumps, and this " has caused the surface to settle and crack. It was the " duty of the defendants to prevent this in some manner " if they did not take the plaintiff's land."

In connection with the case of *Jordeson*, mention may be made here of the case of *The Trinidad Asphalt Co.* v. *Ambard* (1899), A. C., 594. It appears at La Brea, in the Island of Trinidad, where the land slopes down from the Pitch Lake to the sea, a distance of about a mile, there is found near the surface a stratum of asphalt or pitch. In some places it crops out on the surface, but for the most part it lies at a depth varying from 4 to 7 feet. So long as it is undisturbed, it is stable and firm enough to support the soil above it in its natural state. The lands of the plaintiffs and the defendants adjoined, that of the defendants being at a somewhat lower level. The defendants excavated their land, thereby withdrawing support from the plaintiffs' land. As the result, the section of the stratum of pitch thus exposed to the atmosphere began to melt and to ooze out, and the surface of the plaintiffs' land began to sink and crack. A depression was formed in shape like half a saucer about 5 feet deep in the centre at the boundary line, and going back in a semicircle with a radius of about 60 feet. The judgment of the Privy Council was delivered by Lord Macnaghten, who said (p. 602) that " it is not necessary " to discuss the question as to the right of support from " subterranean water, because the substance which " afforded support in this case was not water."

Doubts as to the extent of the decision In Popplewell v. Hodkinson.

The case of *Popplewell* v. *Hodkinson* was much discussed in the case of *Jordeson* v. *Sutton, Southcoates, and Drypool Gas Co.* As has been pointed out, the majority of the judges in that case held that the decision in *Popplewell* v. *Hodkinson* was not applicable, because it dealt only with support by water. Lindley, M.R. (p. 239), taking that view said: "In this view of the "evidence, it is unnecessary for me to decide whether, "if the defendants had done nothing more than pump "underground water from their own land and thereby "let down the plaintiff's houses, an action could have "been maintained against them. *Popplewell* v. *Hodkin-*"*son* looks like, and has generally been regarded as, an "authority, that no action will lie in such a case. But "I am not satisfied that this broad question can be con-"sidered as finally settled by that or any other decision. "The question involves very important considerations. "Two conflicting rights have to be reconciled—namely, "the right to support and the right to pump water. It "is not necessary to decide which is to give way to the "other. I leave the question where it is." Rigby, L.J. (p. 242), who took the same view, said: "It has been "argued that the case of *Popplewell* v. *Hodkinson* has "established the rule that, under no circumstances can "there be any right to support to land from water, or, "in other words, that any landowner may, by operations "on his own land, draw away water, not flowing in a "defined stream, from beneath his neighbour's land "without regard to any consequence which may arise "to that neighbour. Even if that were so, it would not "follow that a bed of running silt, such as we have to

" deal with in the present case, could be drawn away ;
" and in my judgment the extreme logical conclusion
" from the proposition really established in *Popplewell* v.
" *Hodkinson* would not lead to such a result. That case,
" in my opinion, has no application to the present. I do
" not, therefore, intend to express a final judgment as to
" the exact interpretation of that case, though, as at
" present advised, I am by no means prepared to give it
" so far-reaching an effect as is contended for. . . . . .
" If, with regard to a swampy tract of land, it were held
" that no man could drain his own soil because by so
" doing he would also drain his neighbour's, and so let
" down the surface, the ordinary beneficial enjoyment of
" the land would be impossible without agreement by
" all the landowners affected, and the rule would be
" ' once a morass, always a morass.' It is against this
' extreme logical result that I am disposed to consider
" the decision in *Popplewell* v. *Hodkinson* to be directed.
" Having come to the conclusion that in such a case as
" that before the court there was no natural right on the
" part of the plaintiff to prevent his neighbour from
" draining his land for ordinary uses that might be
" foreseen (including, under the circumstances of the
" particular case, the obtaining of a proper foundation
" for substantial buildings), although the result might be
" to let down the plaintiff's surface in its natural con-
" dition, the conclusion was not altered by the fact
" that, two or three years before action, the plaintiff had
" chosen to build small houses on the insecure founda-
" tion of his own swampy soil. The court recognised
" the possibility of such a right as that claimed by the
" plaintiff being conferred by grant, express or implied,
" which in my judgement involves the conclusion that,
" when support to buildings from water is enjoyed for

"twenty years, the right to it becomes absolute." Vaughan Williams, L.J., who took the view that what was withdrawn was water, approved of the decision in *Popplewell* v. *Hodkinson*, and in the course of his judgment said (p. 255) that "it seems to me that the right "of support by water to soil does not depend upon the "same considerations as the right of support by soil"; and he also said (p. 256): "To affirm the right of support "is to affirm that no land can be drained, or well or "trench dug without the risk of an action for letting "down the surface of neighbouring land. I cannot "persuade myself that such a right is for the interests "of society, or essential to the beneficial ownership of "land, and if the right is based upon an implied grant "supposed to be made when lands belonging to one pro-"prietor were divided by him between two or more other "persons, it seems going very far to invent obligations "in respect of unknowable and changing subject-matter "like underground water.

"On the whole, I think that both the decided cases "and the reason of the thing negative the right of sup-"port by water, and this conclusion is fortified by the "absence of any affirmation of such a right in the English "authorities and text-books, and by the terms in which "the right of support is dealt with in the Roman law."

Can a Right to Support by Underground Water be Acquired by Twenty Years' Prescription

It is to be borne in mind that the decision in the case of *Popplewell* v. *Hodkinson*, though resting on the high authority of the Exchequer Chamber, is not a decision of the highest tribunal. The doubts which have been suggested by the judges in regard to it are of two kinds. In the first place, it is hinted that the whole question

whether there is any right of support from underground percolating water upon facts such as existed in that case may require reconsideration. In the second place, a new question is suggested, viz. whether such a right may not be acquired by grant expressed or implied. A case of the latter kind was attempted to be made out in *Popplewell* v. *Hodkinson*, but failed on the facts. In *Shelfer's Case*, a case of prescription under 2 & 3 Wm. IV., c. 71, s. 3, was set up on the principle of *Dalton* v. *Angus* (1881), 6 App. Cas., 740. In the latter case the House of Lords decided that a right to lateral support from adjoining land can be acquired by twenty years' uninterrupted enjoyment for a building proved to have been newly erected (or altered so as to increase the lateral pressure) at the beginning of that time, provided that the enjoyment is peaceable and without deception or concealment, and so open that it must be known that some support is being enjoyed by the building. The enjoyment must, in legal phraseology, have been *nec per vim, nec clam, nec precario* (6 App. Cas., at p. 796). Lord Selborne, L.C., there, after quoting these words, says: "All these con-" ditions are capable, in my judgment, of being fulfilled " as to the right of support to buildings." It is a coming question whether they are capable of being fulfilled as to support by underground water. Kekewich, J., in *Shelfer's Case*, decided in favour of a right of support founded upon the statutory prescription which presumes a grant. The remarks of at least one of the judges in *Jordeson's Case* would seem to tend in the same direction, though all of the judges reserved their judgment on the point. What is to be the upshot, time must soon determine. The consequence of a decision by the House of Lords upholding a prescriptive right after twenty years' enjoyment must have a vast and far-reaching effect, and must

seriously affect building operations where underground water is likely to be met with.

Jordeson's Case was taken by appeal to the House of Lords, and came on for argument a few weeks ago. After the arguments had proceeded for some time the parties came to terms. We are therefore deprived for the time of the advantage of knowing the views of their Lordships upon the interesting questions discussed in the Court of Appeal.

Locus Standi of Landowners in opposing Bills affecting Underground Waters.

The Court of Referees in Parliament, in dealing with this matter have acted on the principles laid down in *Chasemore* v. *Richards*. They have disallowed the *locus* where mere underground percolating water is threatened, and they have allowed the *locus* in cases where they have been satisfied that there was *primâ facie* evidence of the existence of an underground defined and known channel.

Where the water supply is in the hands of local authorities, and they derive their supply from an artesian well or wells, it sometimes happens that these are threatened by a scheme for sinking another well in the neighbourhood. In such cases the local authorities have a *locus* to protect their water supply, not on the ground of any right to underground water, but because of the Standing Order (H. C.) providing for a *locus standi* where they allege that their district will be injuriously affected. A notable instance in point is that of the Nottingham Corporation Bill of 1897. The proposal of Nottingham was to sink artesian wells into the pebble beds of that region. Various other local authorities, Mansfield, Newark, and others, had already at great expense sunk wells of their

own in various parts of the pebble beds. These local authorities were heard to oppose the Bill on the ground that their wells would be prejudicially affected by those proposed by Nottingham. But what if the then existing wells had belonged not to local authorities but to private individuals or to a water company? They would probably have had no *locus standi*—at least in the House of Commons. Instances of seeming hardship sometimes arise. Take the case of Hertfordshire, which already complains of being unduly drained by the wells of the New River Company. In 1896 that company promoted a Bill for power to sink more wells. In that case the landowners might not have had a *locus*, but for the fact that the Bill was referred to a Hybrid Committee, before whom all petitioners are heard without the ordeal of passing through the Court of Referees. A Hybrid Committee is, however, not always considered a satisfactory tribunal. I may add, in conclusion, that County Councils have, by the Standing Orders of both the House of Lords and the House of Commons, a *locus standi* to oppose Bills relating to water supply, where they allege that the county or any part thereof will be prejudicially affected.

Mr. A. G. Rickards, Q.C. (Associate), in proposing a vote of thanks to Mr. Shiress Will, said he was sure that the Members present would agree that The Institution was much indebted to his learned friend, the author of the Paper, for his comprehensive and lucid summary of the law on the question of underground water. He concurred so completely with what had been said that he felt it impossible to criticise the Paper itself, but it was possible, he thought, with every respect

to the legislature, to criticise the law as it now stood.

He had often thought (and he was not alone in his opinion) that the decision in *Chasemore* v. *Richards* worked, in some instances, very harshly. The case was decided 41 years ago, and the principal reasons for the decision seemed to be two: first, that a landowner was entitled to drain his land and to do what he liked on it, and that he had an absolute property in the land, and everything in or under the land, including water; and, secondly, the practical difficulty of tracing underground water so as to prove its abstraction.

Now, first of all, a landowner's rights were founded on his ownership of the land, and, he took it, on an ordinary ownership, and not an ownership such as was created sometimes by a special Act of Parliament for the benefit of a water company, who sank wells with powerful pumping machinery, which undoubtedly did affect the land of their neighbours.

He also thought, with great respect, that water did not rest on the same footing with regard to the handling of it, so to speak, as ordinary minerals. One might remove any amount of coal or ironstone, for instance, and, subject to the right of lateral support of the next door neighbour, one did not affect his dealing with the coal or iron under his own land. But the water moving underground—the water in the neighbour's land—was certainly affected by pumping and abstraction on the upper side of such land.

Therefore he did not think the analogy of water to ordinary minerals was a very sound one. When the decision was given in *Chasemore* v. *Richards*, the enormously powerful pumps now used by water com-

panies and local authorities were not even thought of, and it was not contemplated that pumping would have such a serious effect on the water underlying neighbouring land.

There was the other difficulty, of course, that is to say the practical difficulty of saying whether one did abstract water, by sinking deep wells, from a neighbour's land. It was often quite impossible to follow the course of the underground water; but it had been proved that the pumping of deep wells by powerful machinery actually lowered the water level for some distance round, and there were many instances of wells which had been dried up by the pumping of underground water in neighbouring lands. When, from any cause, the pumps had for a time been put out of use, the water in the surrounding wells stood again at the original level.

He thought the decision in *Chasemore* v *Richards* was one that had undoubtedly worked considerable hardship on adjoining owners who also had wells, and he thought that the wise maxim of the law *sic utere tuo, ut alienum non lædas*, would apply to the case of sinking deep wells with powerful machinery, and so draining the neighbouring land. There was perhaps a grain of consolation to be got out of the *Grand Junction Canal* case, which dealt with water in a pond, known as the Silk Mill Pond. As he understood it, the local authority put in a drain under, but not through, the actual bed of the pond. The result was that they lowered the water in the pond, though they were not taking water actually out of it, but only water percolating into it. He regarded that case as a justifiable attempt (with all respect to the House of Lords) to escape from the decision in *Chasemore* v. *Richards*.

The Surveyors' Institution had before now assisted in altering and in promoting legislation, and he should much like to have the opinion of practical surveyors as to the fairness of the decision in *Chasemore* v. *Richards*, and as to whether it was not desirable, having regard to modern circumstances and the powerful machinery now used, to reconsider that decision and to give the owners of adjoining lands, who were obviously injured by pumping, some remedy against what he regarded as an undoubted injury to them.

He would not go into the question of lateral support which, as Mr. Shiress Will had said, was yet undecided. It was an interesting subject, but, in his opinion, there was a very fine distinction between silt containing water, and underground water which contained no silt, but which, nevertheless, afforded support to the land.

Mr. Arthur C. Pain (Associate) said he had much pleasure in seconding the vote of thanks to the writer of the Paper. The laws which affected the flow of underground water were year by year becoming better understood, and it did not seem to him that there should be so great an amount of difficulty as appeared to exist in the minds of many persons with regard to this matter.

He was a member of the Parliamentary Committee of the Surrey County Council at whose hands the question of underground water (indeed the whole question of water supply, from the point of view of local government) was receiving very careful consideration; while still further the County Councils' Association of the United Kingdom was considering the whole question

of water supply, and more especially underground water supply as affecting the districts over which they had particular control.

He thought that local authorities should not be bound too much to their own districts. It had sometimes been contended that a local authority should not go outside its own district for its water, but that appeared to him to be an absurdity. Was a district situated, say, on clay in which there was practically no water at all, to be bound to get their water from that clay alone? They must go into other districts to seek their water supply. "Coming events cast their shadows "before," and he ventured to think that there was coming in the near future an alteration of the general law with regard to underground water, and a particular instance which he ventured to regard as the shadow coming before the event was the case of the Goole Urban District Council in a Bill before a Committee of the House of Lords two years ago for obtaining water outside their own district. Lord Camperdown, who was Chairman, took, might he say, the unusual course of almost compelling the promoters of the Bill to agree to a clause by which, in the event of their sinking deep wells for their works and pumping, and so affecting any of the streams, ponds, or wells in the area which they proposed to deal with, they were to compensate all persons whose wells, ponds, or streams were affected, by money compensation, or otherwise. It was, in fact, so settled by the Committee.

He thought that was one of the strongest cases that he could recollect, and the learned writer of the Paper, who had had a large parliamentary experience, would say, if there was any case on all fours with it, as

shadowing forth an alteration of the law which he thought would come about in the future, compensating landowners or other persons affected by works, and, as Mr. Rickards had said, exceptional works, where from deep wells a large quantity of water was pumped constantly day and night, affecting considerable areas. As the law at present stood it afforded no compensation to those who might be thereby injured.

It was interesting to speculate on what was going to be the effect in future of this constant pumping of underground water. What would be the effect on the surface if a large quantity of water were drained from below it? There was a good instance in the case of the Severn tunnel. There, as might be remembered by many present, the ditches which divided the lands adjoining the River Severn were filled with water prior to the construction of the Severn tunnel, but the effect of the continuous pumping by night and by day, month after month, and year after year, had been to drain those waters entirely away.

He believed he was right in saying that the owners of that land, except in the case of land actually taken by the company, or of those who could claim for damage to the land by the construction of the railway under it, had no compensation whatever.

Mr. J. Lucas (Professional Associate) said he felt under no small difficulty in speaking on so large a question in the short time available. The author presented, what had long been wanted, a clear statement as to the legal position of the rights to underground water, and it seemed to him, after reading the

Paper, that the main question raised by it was whether underground water, which admittedly flowed not in a defined channel, should be protected in the same manner as surface streams had been protected from ancient times. This process of protection seemed to have begun with navigable rivers, and to have been afterwards extended to all surface streams. Since pumping operations on a very large scale had become general, the question had taken another form, and to cut the gordian-knot of a difficulty that was not open to any very obvious solution, attempts had been made to establish the position that the expression "defined channel" could be, in a legal sense, applied to certain underground streams.

For his own part, having personally acted in many of the cases mentioned in the Paper, and having frequently in practice, in Parliament, and elsewhere, had to deal with this question of a "defined channel" as regards underground water, he thought that it was often nothing more than a card which the adversary (if he might use the expression) kept up his sleeve in order to produce it if he held no other trumps; and he felt, also, that if it were once to be admitted that water, even flowing, for instance, in a cavern along which one could walk, was to be taken in its legal sense to be in a "defined channel," the complications which would arise, and the difficulties which must be introduced, seemed likely to be so great that the remedy would be worse than the disease. He could not help thinking that the present law of protection should be limited to visible water on the surface—that visible streams, where nature drew a sharp line, which were now protected by the law—should be taken as the limit of protection, and that the question raised in

the Paper, whether underground water should also be protected, should apply to underground water as a whole.

The author of the Paper had very clearly defined the legal position of surface water. It was water flowing down a slope, perhaps invisible, but which ultimately reached a stream. A defined channel was protected; water flowing down a slope was not protected. The analogy was that underground water flowed down the basin contained in a stratum until it came in contact with or reached the lowest line through the cusps of the contour lines of the water system. Such a line might then be called a defined channel, but in no other sense was it so. The analogy was between the water flowing towards this line, and water flowing down a sloping surface until it reached a stream. The old law, in protecting rivers, did not take into account that in many cases these had their origin in and were fed by subterranean water systems, and if those subterranean systems were depleted and the water were drawn from them the rivers would cease to exist.

Of the effect of altogether depleting very large areas of water there was no more notable instance than the Severn tunnel pumping, where grievous injury had been inflicted on landowners and farmers for many miles, owing to the surface water, which enabled them to keep large flocks and herds, being interfered with and their having consequently to remove elsewhere.

There was a case following that of *Chasemore* v. *Richards* which he noticed the author had (perhaps intentionally) omitted from his Paper, but which seemed to him, as a layman, to be of considerable importance.

He would quote it from the *Transactions* of The Institution of Civil Engineers (vol. xx., p. 253). In a discussion on water rights raised in the Paper by Mr. Braithwaite on "The Rise and Fall of the River Wandle" Mr. Bailey Denton observed that the decision in the case of *Chasemore* v. *Richards* had already been reversed by Vice-Chancellor Stuart in the case of *Ennor* v. *Barwell*. The Vice-Chancellor, in delivering judgment, particularly referred to the cases of *Chasemore* v. *Richards* and *Broadbent* v. *Ramsbottom*. The decisions in these cases were disregarded. It was held that underground water was the property of the person whose land it would reach by percolation and gravitation from a higher to a lower level. That decision, however, had not yet been confirmed by a higher court.

He felt that in the short time available it would be utterly impossible to do justice either to the author or to the subject. The issues raised by the Paper were so momentous that he felt it would not be a right or proper thing to attempt to discuss them by condensing an experience of 33 years into as many minutes.

If time had permitted he should like to have been able to review the many cases with which he had been connected, and to address something of greater moment to the Meeting, but as this was not the case, he would conclude by saying that, in his opinion, in the present state of the law, the rivers issuing from underground water systems were doomed. There was no law to save them, and in course of time all the streams issuing from the chalk, for instance, would disappear if the underground systems could not also be protected. It was a legal maxim that the public convenience should take

precedence over private interests, and when there was a direct conflict between the two, the individual must give way.

He dissented from the view expressed by some of the speakers that the course of underground water was not certainly known. All underground water systems were divided into basins, whose limits could be clearly defined, both in plan and in altitude, and by means of lines of equal altitude upon the surface of the water, or water contours, the subterranean course of every drop of rain falling from the sky and sinking into the underground water system could be traced, and the quantity due at any point calculated, as he has repeatedly proved.

Mr. E. K. Burstal (Visitor) said the Paper was one of very great interest indeed, more especially to engineers who happened, as was his own case, to have to consider the question of the flow of underground water in connection with the legislation of the coming session. He viewed with alarm any interference with the present law, not because he thought the law now gave justice (for it did not), but because we knew so little of the conditions of the flow in connection with underground waters that, even in a limited district, the cost of undertaking a hydro-geological survey, which should give approximately the direction of the flow, was so great as to be almost prohibitive. Of course, at a particular time when working underground, one knew what was happening, but if a survey were undertaken in a dry time it might only be possible to imagine approximately what would take place during a wet period; but it was difficult to determine with any approach to certainty the

direction of the flow of underground water under varying conditions.

In dealing with strata such as chalk, one could with fair accuracy ascertain what was going on as to the direction in which the water was travelling, and could also forecast the quantity of water to be got from a certain area. But he thought that the evidence given in the case of Nottingham, on the Leicester, Derby, and Sheffield Water Bills of last session, demonstrated the very great difficulty in some formations in dealing with the question of underground water. Parliament had recently shown a tendency to deal with one point, if he might be allowed to say so, with wisdom; and that was to define a protective area round wells. He thought it an iniquitous thing that any body corporate or any private individual should be allowed to sink a well within a short distance of an adjacent well and, by going to a certain extra depth, deplete that other well.

In one case in which he was interested—and his friend Mr. Pain, he thought, would bear him out—namely, the case of the Wye Valley water scheme, they insisted on a clause by which the Aldershot wells should be protected as against any to be sunk by the company within a distance of three miles. Wells were known to be affected at a distance of nearly two miles, and he thought it was very wise to insist on a three-mile radius in that particular case. It did no harm to anyone and formed a very useful precedent.

The question of support was one entirely of degree. In draining the water from the chalk, the water would still be retained in it to such an extent that it would not be greatly affected by any ordinary operation of pumping,

but when water was drained out of the sand it was very different and very difficult to draw the line as to when the support was materially affected.

Mr. W. Woodward (Fellow) observed that the last speaker had spoken of the subject as one of special interest to engineers. He ventured to think that it was one of at least equal interest to architects.

It very frequently occurred in London that an architect had to excavate an area in order to construct a sub-basement, necessitating a depth of, say, 30 feet. During the construction of that sub-basement it was known that water in small quantities, and water only, percolated from the adjoining sites upon which houses were standing. Almost immediately after such excavation, cracks and fissures appeared in the walls of those adjacent houses. In such a case he should like to ask the learned author of the Paper whether or not the building owner was liable to the adjoining owners for those fissures, cracks, and defects which had arisen from the abstraction of percolating water only, from the adjoining property.

Mr. T. Blashill (Fellow) said he was only interested in this question as an architect, and did not profess to regard it from an engineering point of view, or from that of an owner of underground water. Some 25 years ago, in rebuilding some premises, he had occasion to go down to a depth of about 20 feet, and when he had excavated to about that depth, the adjoining owner commenced excavating 45 feet down. His client was afraid that when

pumping began, as it evidently must soon do, it would drain the water away and let down his building when perhaps half finished. He (the speaker) went to the eminent architect who was carrying out the adjoining building, and, acting under his client's instructions, threatened to apply for an injunction if he went on with the excavation. The architect was very calm, and perfectly satisfied as to the way he was going to work, and simply advised him to consult his client's solicitor. He went to the solicitor, who said it was a very difficult matter and ought to be submitted to counsel. They went to the solicitor's counsel (then a promising junior, now an experienced Q.C.) who, after a full explanation of the facts and a careful consultation of books of reference told them the story of *Chasemore* v. *Richards.* He (Mr. Blashill) pointed out that he was not an owner of any water rights of any kind whatever. He did not want the water—it was no good to him. All he contended was that, whereas the soil in a moist state would carry his client's building, in a dry state it would not. It was quite distinct from the case of *Chasemore* v. *Richards,* which related to flowing water, but to that case he was constantly referred as a precedent.

As a matter of fact, the architect took every care for the safety of the building, and everything ended satisfactorily. But, not having a client now, he was quite indifferent as to which way the law might be.

He supposed *Popplewell's* case might govern, or lead to, a decision on this point. It was extremely important to architects, and he would much rather see the matter dealt with as in *Popplewell's* case than as in *Chasemore* v. *Richards.* He suggested that it was not a case of water at all, but of moisture where a moist material

which formed a good foundation was made into a dry material, which did not.

Mr. Shiress Will, in reply, thanked the Members present for the reception accorded to his Paper, and said that he thought Mr. Rickards had gone straight to the root of the matter in connection with the law of *Chasemore* v. *Richards*. Was the law just as applied to present circumstances? As he had pointed out, it was hardly probable that, over 40 years ago, the House of Lords could have foreseen the length to which that decision would lead in practice, but the reasons given for the decision in that case showed that it must be either one thing or the other. There could be no half ownership in underground water. Underground water was something which one could neither see nor follow. How was it possible to attach rights of ownership to that which could neither be seen nor followed. Surface water could be seen, and its course followed, and the rights could be demonstrated and their infringement known. That was the whole difference, as was clearly pointed out by Lord Cranworth in *Chasemore* v. *Richards*.

He agreed with Mr. Rickards as regarded the hardship inflicted by the existing law in many ways, but he confessed that such study as he had been able to bring to bear on the matter convinced him that the law could not, with justice, be altered in that respect.

The question of *locus standi* might perhaps be considered, but there, again, the difficulty would be in saying that in the case of every infringement of underground water there should be a *locus standi*. That was hardly possible, for it was generally a question of degree.

Suppose the referees were given a discretion, what did that mean? It would only be putting the parties who feared that their rights were about to be infringed to the expense of petitioning in every case, on the chance that the referees might consider their case to be one calling for the exercise of their discretion.

Mr. LUCAS said that in the Paper it was stated that "the Court of Referees in Parliament have disallowed "the *locus* where mere underground percolating water "is threatened, and have allowed the *locus* in cases "where they were satisfied by evidence that there was "an underground known and defined channel." Might he ask what case that was?

Mr. WILL said the first case was that of the *London and South Western Spring Water Bill* in 1882. It related to this same River Wandle in the Croydon district.

Mr. LUCAS asked whether in that case it was not the fact that Sir George Rickards, a member of the Committee, explained that the reason the *locus* was allowed was that they had *primâ facie* evidence that there might be a definite channel—not that they were satisfied there was an underground channel? That made all the difference.

Mr. WILL said he thought Mr. Lucas was right, and that it would have been better if he had used the words "a *primâ facie* case."

A case was quoted by Mr. Pain which was extremely interesting. He was glad to know of it as a precedent, but he could not call to mind any other case on the same point.

He had listened with great attention to the remarks of Mr. Lucas, especially where he quoted Vice-Chancellor Stuart as having given a decision adverse to *Chasemore* v. *Richards*. All who remembered Vice-Chancellor Stuart knew very well what a bold and fearless judge he was, and if in that case he attempted to overrule the House of Lords, he was afraid his example had not been followed by other judges.

He had carefully followed Mr. Burstal's very interesting remarks, which agreed, he thought, with his own views, as to the possibility of any change in the present law, although he did not use the same words. The difficulty lay in tracing the course of underground water.

He (Mr. Burstal) had also alluded to the question of protecting wells sunk, probably at great expense, by public authorities to supply their localities. The case of the Aldershot Well was interesting, but Mr. Burstal would also remember a case which went the other way where, in connection with the pebble beds which had been alluded to, Newark brought in a Bill to protect itself in the same way, but, in the result, failed; though Parliament threw out two projected wells which would have affected Newark. The Aldershot case was a very interesting precedent, and one which should be kept in mind.

Both Mr. Woodward and Mr. Blashill desired to have an opinion upon the point which was so much discussed in *Shelfer's* case, namely, whether if a building owner made

an excavation into his land (whether 30 feet or 35 feet deep, or even more), and drained the water from his neighbour's land, and let down his neighbour's building, the building owner was liable to make good the damage. He wished he could answer the question, but he feared that nobody could do so with certainty in the present undecided state of the law. In *Jordeson's* case the whole matter was discussed, and was carried to the House of Lords; but after the case had been argued for three or four days, the parties decided to square the matter, and there it ended. So that, without a decision of the House of Lords, he could only prophesy, and not knowing what that decision might have been, he would not even attempt to prophesy.

The argument of Mr. Blashill that the question of right to support did not depend upon *Chasemore's* case opened another question altogether. That case decided one thing, but the question of right to support was another thing and depended on a totally different principle. An owner had a right to the support of soil—*i.e.* his neighbour could not excavate so as to let down his soil; but supposing excavation was made and what was taken away from the neighbour was not soil but underground percolating water, in which there was no ownership, the question was, not whose the underground percolating water was or who was entitled to keep it, but whether the neighbour was entitled to the support from it? That was the point. In a bold judgment, Mr. Justice Kekewich held, that if a man had enjoyed the right of support of underground water for 20 years, though having no ownership in it, then he was entitled to support from it in perpetuity. He did not say that this judgment conclusively settled the law on the question.

He treated it with all respect, but the matter before it was finally determined, must go for decision to the highest tribunal.

The vote of thanks having been put and carried unanimously the Meeting then adjourned.

Paper 255.
No. 411.

THE INCIDENCE OF IMPERIAL AND LOCAL TAXATION ON RATEABLE PROPERTY.

By J. HENRY SABIN, Professional Associate.

Read at the Ordinary General Meeting of The Surveyors' Institution, *on Monday, March 26th,* 1900.

Thomas Miller Rickman (President) in the Chair.

The phenomenal fall in farm rents and the increased and increasing requirements of urban authorities have combined to re-arouse and to deepen interest in economic questions involved in the incidence of imperial and local taxation on rateable properties. This taxation is levied upon an occupier, not in any visible relation to his income or to his real ability to pay, but in relation to a yearly sum payable, or deemed to be payable, to another party. If it be true, in the straitest sense, that taxes are levied on persons not on things, that "it is not "property which is taxed, but the person or persons "who are in enjoyment of it," who is it that pays taxes and rates on houses and land? The party who has the pleasure of paying or the party who has the enjoyment of ownership? If it is a divisible burden, what principles, if any, govern its division?

Questions such as these are not "mere theoretical "conundrums." They are interesting economic problems, and they bear so directly on the work of land agents

and surveyors that we ought to be competent to form opinions in regard to them, not cast in the mould of a narrow professional prejudice, but shaped by experience, and strengthened by a knowledge of facts relating to the buying, selling, and letting of the things rated.

While it is alleged that the method of raising funds for local purposes by rating is faulty; inasmuch as there is no security of "ability to pay"—the essence of equality in taxation—most of the remedies adopted, and some of those proposed, have equivalent faults. When claims for local assistance have grown too strong to be resisted, a share of the burden has been placed on the broader back of the Consolidated Fund without precise regard to the ethical justice of the relief granted, sometimes careless of economic results, and, it is very much to be feared, with something of the feeling that the spoils belong to the victor. In fifty years, rates, tolls, and dues raised by local authorities, and taxation raised for local purposes by Parliament, have risen from about 15 millions to about 55 millions; while the proportion of the parliamentary share has risen from one-twentieth of the local share raised by rates to more than one-fifth. A subvention of £110,000 made in 1835, for "defraying half the "expenses of prosecutions at assizes and quarter sessions, "and for the removal of convicted prisoners from local "prisons," has grown to about 3½ millions out of general revenues, and nearly 7½ millions out of assigned revenues paid to local taxation accounts, for the most heterogeneous purposes.* This includes, say, 1½ millions to meet the subventions under the Agricultural Rates Act, a measure avowedly intended to assist a class rather than localities; but there has to be added the amount required to meet the subsidy granted to the beneficed clergy in respect of

Memorandum by Sir Edward Hamilton, K.C.B., on Imperial and Local Taxation (C 9528, 1899), page 11.

tithe rent-charge, also, it must be conceded, a measure for class relief.

These last subventions were expressly defended on the ground that they were temporary expedients to meet pressing needs. A Royal Commission was promised while the first Act was passing, and was sitting while the second Act was prepared, with instructions "to "inquire into the present system under which taxation "is raised for local purposes, and report whether all "kinds of real and personal property contribute equitably "to such taxation; and, if not, what alterations in the "law are desirable to secure the result." The Commission have already affected legislation in the passage, on their recommendation, of the Clergy Tithe Rent-charge Act referred to, and they have made, in a Frst Report, twenty recommendations of a comprehensive character intended to secure more uniform valuations for rating purposes outside the metropolis, and more speedy and less expensive methods of appeal. They have still to report on the important principles included in the reference.

To use a phrase that promises to become classical, "the time is not propitious for any domestic reforms "which involve a large expenditure." Relief from the Consolidated Fund is, under present conditions, very unlikely, and it is difficult to see how any great reform in methods of taxing rateable property can be accomplished except in a time of abstraction from foreign affairs and of a full Exchequer. There is, however, no reason why the subject should not be discussed, in the hope that such a time may not be unduly delayed.

I am not prepared to say that the whole outcry about, or against, local taxation is justified. If folks will have omelettes some one's eggs must be broken.

Of such outlay some is profitable, some is in substitution of costly services that occupiers formerly performed for themselves. In towns, part is in respect of work that rural landowners have to do directly at their own cost, such as sewerage and water supply to houses and cottages, and some is wilfully caused by the untidy habits of the people. But because the cost has to be procured through the rate collector on behalf of the "parish" or the "corporation," it is assumed to be either avoidable or objectionably personal.

However, much of the outlay is unavoidable, and the Royal Commission in search of information for a final report has obtained assistance to that end, and has published in Blue Book C. 9528, 1899, a Memorandum by Sir E. W. Hamilton, K.C.B., himself one of the Commission, and observations by financial and economic experts in reply to questions submitted to them. No such array of valuable material on the subject of the true incidence of taxation has been brought together in convenient form before. This publication is the text of the Paper which I have the temerity to lay before you.

"The Influence of Taxation on Rent" was the subject of Papers by Mr. W. Mathews, published in vols. xvii. and xviii. of the *Transactions*. It is to be regretted that a writer in contact with "the facts of political "economy," and also "conversant with its abstractions" —qualities it has been assumed could not be found in combination—has been unable to fulfil his hope of discussing "the whole subject of the Incidence of Local Taxation."*

With the first four questions submitted by the Commission to the sixteen experts consulted we need not trouble ourselves. They will afford ample opportunities

* Vol. xvii. p. 376.

for dialectic skill. The fifth seeks to distinguish "the real incidence of taxation from its primary or "apparent incidence." If the Commission should report that the primary incidence should be so altered as to disturb present conditions, it is easy to see that the value of all rateable property may be affected by legislation following thereon; while if we can arrive at any satisfactory conclusion on this fifth question in regard to rateable property, we shall be in a better position to form opinions as to how far alterations subsequently referred to will affect values.

"Taxes," says Lord Farrer, "have a tendency to stick "where they fall." "Taxation," says Mr. Mackay, "is "a burden from which everyone tries to run." All profits, Professor Sidgwick shows, are reduced by taxation; or, as Mr. Cannan explains, taxes are expenses which affect the return to investments. Here are four phases of the incidence of a tax or rate. Part sticks to the first payer, perhaps all does; part may be passed on with more or less difficulty. Both what sticks and what is passed on reduce profits; and, by diffusion, all returns are diminished. Further, it is generally conceded that taxes levied directly on real property have a tendency to fall sooner or later on the owner, while taxes on commodities fall on the consumer.

In discussing the incidence of taxation as surveyors rather than as students of political economy, acquaintance with the relationship between landlord and tenant leads, I suggest, to the important general conclusion, that the closer the economic contact between the taxpayer and the party who can be finally made to share the burden, (1) the greater will be the proportion shifted, (2) the quicker will be the process, (3) the smaller will be the loss by friction, and (4) the higher will be the percentage of

the final impost that will accrue to the rating authority. This contact is found in the closest form between owners and occupiers of fairly rented farms, held under ordinary competitive conditions, on yearly tenancies. One or other or both of these parties will suffer by an increase, and benefit by a decrease in rates and taxes. The tenant will be unwilling to have the gross rent increased by a higher rate or by a new tax, and will seek relief by requiring a reduction in the payment to the owner; not asking for more than the increased rate, probably getting a little less, and thereby accepting a diminution in the return for his invested capital or for his own services. The owner, less willing to disturb his tenants, will benefit more slowly should relief be given.

Occupiers of houses have less in common with house owners: the process of relief from increased rates will therefore be slower, unless the extra burden be excessive and no corresponding general rise in rental values occurs. Moreover, the relief will *tend* to be confined to unbeneficial rates. In long leaseholds and in trade premises the interests of the parties will be more widely severed, and there will be a maximum of difficulty in transferring taxation, and the transference will be diffused.

In considering the true incidence of taxation on houses we must differentiate between the buildings and the land, as indicated clearly in Mr. Mathews's Papers. Together, they are in law real property; in political economy the land is, the house is not; it is consumable and a commodity. Our conclusions may therefore vary according to the view we take of the true ownership of the house as distinct from its site. It is held, at first sight paradoxically, that an occupier of a house is the owner of the commodity, purchasing it for the period during which he pays rent; that therefore, whether taxes fall on real property or on com-

modities, tenants of houses have to bear taxation actually as well as apparently. But, if the tenant be a purchaser of the user on a limited hire system, the article purchased is diminished in value by the impost upon it, and the vendor (the landlord) is therefore the loser in the transaction, and actually bears the tax. I commend Mr. Mackay's arguments hereon to your careful consideration.*

A tax on commodities tends to restrict their quantity or deteriorate their quality by raising the price against the buyer. Houses are subject to this restrictive tendency, and so too is that part of the raw material required for their erection (represented by their sites), which has to bear a share of taxation levied upon house and land together. While, therefore, a tax falls on the occupier, it is shifted backwards in degrees to the house owner, and through him to the landowner if there be a third party, subject of course to the limitation that the process is blocked by a contract between any two of the three parties, and that the tax loses its weight in the process.

But I am satisfied that, in practice, farm houses and buildings do not come under the law usually affecting commodities, in any sense whatever, even if other trade premises do. The price of farm produce in this country is, broadly speaking, not increased by taxation. The consumer cannot be made to pay even a limited share of rates on farms; the tenant and owner bear the whole, and the tenant, as soon as he can, shifts the burden on to the owner. The variation in the price of wheat is not caused by variations in the cost of production, but in the quantity produced. Corn is not cheap because rents are low; rents are low because corn is cheap. Although an

* *Memos.*, pp. 226-227.

increase in the price of cloth would follow an increase in the manufacturer's rent and rates and wages bills, more rates on farms would not necessarily enable English flock-masters to get more for their wool. On the contrary, the low price of wool has contributed to the fall in rents of sheep farms, while the price of cloth has fallen in no sort of proportion.

The answer to this fifth question is, therefore, that the real incidence of taxation on rateable properties differs according to the character of the property, and that uniform alterations in the methods of rating or in the collection of taxes would affect different owners and occupiers in entirely different ways.

It does not follow that there is no general law regulating the incidence, although the law may be interfered with by many checks, and by that uncertainty of action in economic matters which it is impossible to eliminate from any problems in which man is a factor. But the pressure of the law appears to me as constant as the law of gravitation. Thus the friction or "drag" which will postpone or retard the transference of a tax will be at a minimum on an estate that has acquired a name for short tenancies (I could name such a property where nearly the whole of two parishes was vacant, then relet, and then in great part vacant again), or where the owner has large means and a sympathetic ear. It will be a little more where tenants cling to old homes and old associations, and a mean or a poor owner trades on such sentiments. The drag will be more effective in the case of houses in long settled neighbourhoods, but here a higher rate may prevent that increase of rent which would otherwise be forthcoming. The drag will be the heaviest in cases of long leases, but, on the other hand, the disability in the landlord or lessor to raise the rent may

more than compensate for the load laid upon the lessee and occupier, who may be the real "owners" of a portion of the value assumed to belong to the ground owner during a portion of a long term, in which case the incidence is exhausted by the "drag" before it reaches the final owner. The "friction," or "drag" as I have called it, does not affect the final economic incidence, and must not be treated as controlling the incidence except for a period more or less indefinite.

The problem will have more light thrown upon it when we consider the next question, No 6, and its sub-questions: What is the real incidence of (A) the Inhabited House Duty?

This tax is levied on the united value of land and house; it is non-existent both until the house is built, and while the house is vacant. It is in fact created by the occupier in the act of occupying, and is collected from him along with a tax which he deducts from his rent. As he has no authority to deduct the house tax, the first inference is that the occupier pays it as in the nature of an income tax, according to Mr. Blunden's view, and that it does not fall upon the owner as averred by Mr. G. L. Gomme. Most authorities agree that it comes under the head of a tax on commodities, "theoretically "a house being regarded as a sort of product grown upon "the land." I suggest that in respect of houses well above the limits of remission or exemption, and where the tax actually reduces the amount available for outlay on other necessaries or on luxuries, the house duty may be in some sort an income tax, but that this is less likely to be the case in houses below £65 rental, or in respect of the whole tax in any case. Professor Bastable says that while the duty falls finally, as well as immediately, on the occupier, its remission in stationary places would

enable owners to get more rent. Can surveyors admit that this limitation would apply? Or would not owners *anywhere* benefit either by its entire abolition or by its transfer to local authorities, if thereby a corresponding decrease in other rates was secured? Whatever a tax attached to occupation is called, it will enter into the calculations of intending occupiers. So also, would not the reduction in the annual cost of a house (*i.e.* rent plus rates) increase the effective demand for houses, and enable owners to secure a *portion* of a remitted tax? The great bulk of the people have to reckon how much they can spend on housing themselves and their families; a house tax therefore affects first the house hirer, then, because it restricts use or demand, it will affect the owner and builder, and finally it will affect the landowner. Of course none of these parties will enter into minute calculations, but when taxation is in the air the average man regulates his bargains in accordance with his environment, and each will, consciously or not, do his best to pass the burden on.

That a house tax diminishes the demand for sites, as predicated by Professor Edgeworth,* is borne out by experience in provincial towns; it scarcely applies in London. In such towns sites for houses below the exemption figure are saleable and fetch higher prices than sites for higher rented houses, and this, I think, quite apart from any other considerations. Mr. L. L. Price† thinks that the occupier pays actually as well as primarily, because he is unable by changing his abode "to remove "or diminish the burden to any practical extent," while "house accommodation is within narrow limits," "a fixed "item in his standard of comfort." But not only have

* *Memos.*, p. 131.

† *Memos.*, p. 180.

the great bulk of the people to consider how much they can spend in rent, it is also widely true that with a similar proportion of the population, after a certain standard has been reached, wages and salaries do not increase uniformly with the growth of families, and that there is in such cases a fixed income and a growing need for room. In cases quite numerous enough to affect our conclusions, the house tax therefore falls under the category of imposts which the owner may have to share, because occupiers will be driven, by necessity for more rooms, into other localities where circumstances permit of houses being provided at cheaper rates. Owners both of houses and of land benefit therefore by remission, although part is appropriated by the occupier. All parties would lose by an increase. The freeholder, of course, will neither gain nor lose if he be a mere rent-charger, but in respect of land to be marketed, freeholders in general would gain or lose in price, or rental, a part of the tax remitted or imposed. We are justified therefore in inferring that owners do bear part of a tax levied upon land applied to a specific use, such as building houses.

Sub-question (B) makes the same inquiry as to *rates* on houses and trade premises. This question is not encumbered by the introduction of the disturbing factor of remissions. The general arguments used in the last inquiry apply to all ordinary rates *so far as they are uniform*, and in respect of *burdensome* as distinguished from *beneficial* charges. Political economists may distinguish between imperial taxes and local rates. An agent does not ordinarily do so when letting premises. Is there any distinction between the effect of a house tax and a poor rate or a school-board rate? Two eminent financial authorities say, with some reservation,

that rates can be shifted to the owner * and that they are deductions from the property in the nature of a rent-charge in the case of old rates, and perhaps in all cases. † When we turn to the opinion of a man less accustomed to theorise than to speak authoritatively out of ripened experience—I mean the late Mr. E. Ryde—we find him concluding, ‡ that the taxation of houses falls on the owners, "because the rents would be so much "higher if there were no rates and taxes." If we assume further, as Mr. Ryde also pointed out, that the owner is very often a compound person, we may also infer that, as regards its incidence, a rate is a compound impost, and that, as already suggested, varying conditions have varying influences upon the actual as distinguished from the apparent incidence, although the economic force may act entirely in the same direction.

In London we are (1) greatly under the influence, benignant or otherwise, of the leasehold system, and (2) possess, much more acutely than in other cities, certain districts which are, as it were, centres of gravity for values. At such centres there is an absolute monopoly of a certain quality of building space. Monopolists cannot transfer to others the whole of a burden primarily laid upon them or theirs, and this will follow:—The rents of sites and of houses at such points as Threadneedle Street and Grosvenor Square will be *enhanced* by the fact that only the most profitable businesses and the richest tenants can pay the rents that can there be demanded; they will be *reduced* by a proportion of the rates and taxes attaching to the

* Lord Farrer, *Memos.*, p. 67.

† Sir Robert Giffen, *Memos.*, p. 96.

‡ *Transactions*, vol. xvii. p. 405.

limited area included in the monopoly, reaching practically the whole at the centre. As such centres are receded from, centrifugal force is exerted, and values diminish until the limit of building is reached. At or beyond the limit, the land, as regards building value, is stricken with sterility; inside the limit the owner will have the potential value reduced by no more than the proportion of the tax on the ground value. Outside the limit entirely new conditions arise.

Let us start from this outer rim, where land is ripe for building. What occurs to the intending lessee or speculative purchaser? Mr. G. H. Blunden thinks that builders do not consider the rent-paying capacity of possible occupiers.* But this can be intended only in a very limited sense. Will not a builder, like all wise dealers in commodities, endeavour to cater for his customers in the matter of building houses as keenly as a Tottenham Court Road tradesman in furnishing them? Both will be prepared to consult the pockets of their customers in regard to price. Norwich, owing partly to special conditions affecting a large area of land in its outer circle, was until quite recently held in bonds. These shackles have fallen off, and there has also been a rapid development of industries requiring comparatively low-skilled labour. The consequent demand for houses of a particular class has been met by the erection of dwellings bearing the minimum amount of rates that can be contrived by compounding. Notwithstanding abnormally high rates, Norwich has thus had secured to it houses above the level of the accommodation enjoyed by similar workmen in many other manufacturing towns. Land will sell for such houses more readily than for houses that cannot be compounded for. I assume from

* *Memos.*, p. 191.

these facts that the landowner bears at least a portion of the rates, and is benefited by the ability of the house-owner to reduce the rates by compounding. Neither land nor house owner would absorb all of a total remission; the occupier would get part owing to competitive action, and a landowner who had new sites to deal with would get some part. Practice, I therefore think, supports the views held by Professor Edgeworth and others, but not those of Mr. Gomme, who suggests that all local expenditure may without injustice be charged upon owners of site values, because land under economic laws naturally bears all rates.

To the extent that rates are equal in amount and in purpose, the inferences are that the result is equal everywhere, but the equality of result is not the same when rates are unequal in amount or in purpose. Beneficial rates and rates above the normal average affect localities in different degrees. Generally speaking, beneficial rates, we may agree with Professor Edgeworth in saying, will not drive people away, but differential rates will, or will tend to;* and we may add that if people do not actually forsake a district it may be safely assumed that the extra pressure has found an outlet. Take Norwich again. The rates are high and largely unproductive, being the result of past unprofitable outlay. Yet it has had an abnormal increase of population considering its situation in an agricultural county. It has just burdened itself with further outlay for street improvements and new sewerage. The extra pressure has fallen on owners. Increased trade has brought back values of houses in the city, and the depreciation caused by heavy rates has been recovered, but owners of land have to accept less than the normal value. To quote Mr. Edwin

* *Memos.*, p. 132.

Cannan, * "The consequence, so far as distribution is con-
"cerned, of rates being for unproductive purposes higher
"in one place than another is to cause less creatable
"immovable property to exist in the high rated and
"more in the low rated, and to make the value of the
"land lower in the high rated and higher in the low
"rated places, than could be the case if the rates were
"equal in all places." Similarly, Mr. Gonner concludes, †
"that differences due to local management being better
"or worse than the average, though in the first instance
"they affect the occupier, will if maintained come to
"affect the owner." If occupiers are satisfied that rents must come down if rates rise, in the absence of advantages derived from the rise, comparatively trivial circumstances will hold them to a locality while the adjustment is being developed. This adjustment is attained along the line of least resistance. If the whole land be in one man's hands, and he be obstinate, he may drive away trade and ruin a town, but such a case is not within my experience, and exists only in the imagination of extreme partisans. If it be only a question of a little extra trouble people will choose a cheaper rated neighbourhood, but on the other hand cleaner streets and more open spaces may be worth paying for, and an occupier will be willing to bear such rates until an extra levy for unprofitable outlay acts as a force that drives him away or depresses his rent. In London the equalisation of rates renders it less easy to escape.

It would be idle to assume that rates for real services all equally fall on the houseowner or landowner. It requires a stretch of imagination to admit that the cost

* *Memos.*, p. 170.
† *Memos.*, p. 152.

of cleaning the streets of snow has become a rate falling entirely on owners because an Act of Parliament has relieved the occupier of the normal duty of keeping his own doorstep clean, and placed it upon the local authorities. Yet it is clear that if the duty had been placed upon one parish and not upon another, the tendency would have been to depreciate the value of houses in the extra rated parish, unless—a very unlikely case—the whole management of the parish was so good as to attract cleaner and more respectable occupiers prepared to pay for the benefits. It may be too that in some districts a free football ground would be deemed worth paying for, and in others that a free library was of value. I believe it is therefore safe to assume that, apart of course from so-called "rates" for water and other purely valuable services, payments for benefits do not immediately or always affect rents, and that they should not, being properly occupiers' charges.

Taxes on traders or trade premises are transferred to customers in part. Is this true in respect of so much of the "rent" as is represented by rates in special centres? Or is it not more probable that part of the extra burden is a charge on the ownership of the property in the monopolised district as already suggested? It would be interesting to know what relation exists between the rates and taxes and the general receipts at various shops of a widely dispersed business. Competition of course rules prices as much in Regent Street as elsewhere, and in settling rent (and therefore rates), the occupying tradesman has to pay a price fixed with some relation to what is paid by a neighbour whose business is of that exclusive character that he can charge for the luxury of Savile Row coats or Bond Street bonnets. Taxes cannot always be passed on. Competition forbids it. Manufac-

turers move from urban to rural districts to escape them, for it must be remembered that they have to pay not only their own immediate rates if they are owners or lessees for long terms, but that portion of their servants' expenses which cannot be recovered from landlords in reduced rents.

(c) With the sub-question of rates on farms we have partly dealt. We have seen that the farmer cannot charge his customer with his rent or rates. Broadly speaking, he passes them backward to his landlord. An occupier is, it is true, influenced in estimating the value of a farm, or of a house, by other matters beside rates. The chance of profitable employment for himself and family and the general amenities of the business will affect his estimate of what he can give. These, however, are inconstant elements. The rent and rates combined are a positive element, and are a first charge.* The variation in values will not be much, but on any excess above the true competitive value the occupier may, and probably does, have to bear the rates. Mr. Ryde's statement that *land* would be so much higher rented if there were no rates and taxes is much nearer the theoretic truth than in the case of *houses*. The number of tenants driven out of farming because their capital would yield no return with former rent and rates, has been sufficient to drive rents down and to leave the burden of taxation on owners.

It is suggested that some part of the rates at least falls on the farmer. It is not a conclusive argument, I know, but it is some evidence of the incidence that no farmer would dream of charging any portion of rates against an income account He will not admit that the house should bear a portion, for he will tell you, and he

* *See also* Mr. Mackay, *Memos.*, p. 224.

is right, that the greater part of a farmhouse is as much a part of the whole machine as a barn or a cowshed. It is impossible to admit that only rates on the economic rent of farms—that is the rent received after deducting interest on outlay—are incident to ownership; a view I understand to be held by Professor Gonner.* Rates on the cost of roads, hedges, drains, &c., have the effect of throwing poorer lands out of cultivation. The poorest lands have lost their power of paying either economic rent or ordinary interest on capital invested thereon, notwithstanding that "an owner will sacrifice something "from an investment made on his own property in place "of some other person's property." Taxes levied on merely economic rents would produce next to nothing; the whole rent would scarcely produce a moderate land tax. I cannot distinguish, as more than one of the economic experts seek to do, between rates incident to rent, and rates on capital permanently invested in land. One of the difficulties in providing labourers' cottages is that the outlay will not bear a return on the lowest remunerative scale, partly on account of the rates to which they become subject when erected. Professor Marshall's suggestion for a remission of rates on improvements for a period, is a valuable one, whatever the prospects of its acceptance may be.

I hold therefore that rates on farm rents fall on landlords, subject to the resistance of existing contracts in the case of new or increased imposts.

It may be said that landlords have not had the benefit of the recent concession in rates, and that therefore the argument is fallacious. I answer (1) that there are ways in which a competent agent may secure a share of the relief without raising rents; (2) that five years is

* *Memos.*, p. 154.

not long enough in which to effect the change; (3) that owners, taking into account past losses, have voluntarily permitted the tenants to have the benefit; and (4) that though there has not been a definite rise in prices sufficient to justify a definite rise in rents, farms now letting command higher rents in the faith that the present relief is likely to be permanent.

Should local rates be divided between owners and occupiers, and, if so, in what proportion, is the next question for consideration?

"Owners" is a sort of generic term covering widely differing meanings. The relative economic positions of "owners" of farms, of houses, and of ground rents, towards the respective occupiers, are on entirely different planes. The same argument cannot adequately serve in all cases. The division of rates between owners and occupiers of farms was recommended by a strong Royal Commission as a partial remedy for agricultural distress. Such a division would have been insufficient to a degree, and has proved unnecessary. Owners have had to give reductions equal, not to half, but to all the rates. No division would have stayed the downward process. I am aware that, in Scotland, rates are divided, but many other Scottish usages have failed to find adoption south of the Tweed, and nowhere can the division affect the aggregate render which a tenant can make for the hire of a farm. This is the true rent. Mr. Leonard Courtney, M.P., favours division because "there may be "important variations of rates and even the creation of "new rates during tenancies."* But would the imposition of any new rate be more acceptable from the knowledge that the owner would at once pay half, than from the conviction that on the first readjustment of rent he

* *Memos.*, p. 89.

might be required to pay it all if rents were falling, or could claim an equivalent for his half if rents were rising? To quote Sir Robert Giffen: Occupiers "count "the full cost of the rates before they settle what rent "they will pay the owners."* The division would be an illusion.

Would the effect differ in regard to houses? Does the beneficial nature of some rates, absent in respect to farms generally, affect the argument? Would, for instance, the ratepayers in St. Pancras approve a Free Library Rate if the owners could be made to pay half? That the struggling tradesman may have good reason to complain of his expenses in rent and rates is evident enough, but I fear that a division of his rates alone would not help him. If a shop will command in the market a rent of £100 a year, with a liability of £25 rates, an owner will certainly require and get £112 10*s.* with £12 10*s.* rates. The competition of great trading firms, working on a margin of profit that will not keep a small tradesman, is a much more serious matter than a non-division of rates, and is I suspect answerable for a considerable portion of the present outcry against rates in towns. Anyone desirous of being further fortified in this view of non-division may do well to study Mr. C. H. Sargant's well-defined reasons.† These ought indeed to convince the advocates of the alteration. Such advocates may be classed as (1) those who are not sure of their ground, (2) those who are not sure of the right proportions, and (3) those who accompany their proposals with conditions as to the representation of owners, which the public in its present attitude towards them are not at all likely to concede.

It may at first sight appear a little illogical after

* *Memos.*, p. 97. † *Memos.*, p. 215.

this statement to question the present method under which an occupier or, if you like, a temporary owner is made, even in appearance only, liable to repay the capital of, as well as pay the interest on, debts contracted for municipal purposes, where the work for which the debt has been incurred is comparatively indestructible. Some loans have, in the past at least, survived the work upon which they were spent, but much of the capital spent in more recent years will certainly outlast the terminable annuities required for its repayment. I can conceive it possible that an entirely independent owners' rate, distinctly leviable for indestructible improvements, might be made to reach owners directly, that is, the persons in receipt of the rack rent for not less than a fixed number of years and paying not more than a certain proportion of such rent to a ground landlord—a cognate definition to "owner" under the Tithe Acts. I shall, however, refer to the question again when discussing proposals for relief.

Question 10 is an old one in a new form: Should ground values be separately rated for local purposes, and, if so, on what principles?

This subject has not only been discussed here, but it had considerable attention from the Town Holdings Committee, before which several members of The Institution gave evidence, and on which a late President of The Institution, Mr. W. J. Beadel, and another member, Sir John Whittaker Ellis, sat. We need not discuss the subject at length. I shall not have been successful in my earlier remarks if I have not given reasons for inferring that sites, or ground values, already bear a share of rates, that they cannot escape the initial load of rating, and that when first fixed in respect of any leasehold property they were deprived, not unjustly, of

their highest potential amount by the rates of the locality. The uninstructed are ignorant of the outlay landowners must incur for roads and sewers, and that frequently no income can possibly be forthcoming while an estate is ripening for building. Outlay by a local authority for drainage schemes, &c., may of itself depress the price of marketable land if the outlay does not cover a benefit to the area in question. It would therefore be unfair to charge owners of sites with the cost of work for which they had surrendered an equivalent. We are on different ground when outlay is required to give an outer circle admission to a sewage scheme or other similar improvement. Equity, for instance, seems to indicate that the £3,000,000 outlay with which we are threatened for sewerage for new London suburbs, work which must perforce be carried out by the County Council, should be repaid by the beneficiaries, and not by either occupiers or owners in the inner area. It is because London is so big and its government even now so nebulous, that what is sometimes done in small areas is not done in a large one. Speculators in land and manufacturers of shoddy ground rents have been known to develop estates without the least regard to the ultimate destination of sewage, and later owners have had to suffer an almost intolerable burden in the remedy. In one district I have in mind occupiers deserted the neighbourhood, or secured such reductions in rents as left landlords with an income not sufficient to meet the ground rents. Leaseholders could pass the incidence of the rates no further, nor could freeholders recover from the speculators who sought to turn a marsh into eligible building land without securing an outfall. An "owners' rate" was effectively laid on the owners of uncovered land

and on the freeholders by the entire stagnation in sales and lettings, and ought to have been laid on the other ground-rent owners as a penalty for improvident investments.

I do not think it would be unfair to make a lessor liable for rates for objects entirely unforeseen when a lease was granted, subject to two important reservations: (1) it should be shown that there is no margin on the ground rent which would be a just equivalent for the new rate; and (2) that the benefit does not enure wholly to the lessee. As regards the great mass of leases in the large towns, it is certain that ground rents fixed between 1860 and 1880 are lower than the rents that could have been got between 1880 and 1900. But there are areas—an instance is, I believe, to be found in the south-western suburbs of London—where inaccurate forecasts have thrown upon lessees a burden they did not bargain for. Of course the wrong rights itself as the houses change hands and the burden is transmuted into a capitalised loss, borne by successive owners; but, nevertheless, the imposition of an entirely new burden, such as education and advanced public sanitary regulations, may have results not contemplated by the legislature, and which it cannot be said either party to a lease could have taken into account. Few thoughtful writers have the courage to suggest that present ordinary local expenditure ought to be laid in part on present lessors, or that existing contracts should be disturbed except under such special circumstances as constitute a public scandal, but an entirely new burden created by legislation is another matter.

Apart from rating purposes two reasons are urged for a separation of site values. First, to remedy an injustice in regard to deductions for repairs where the ground

rent is an appreciable part of the value. At present, premises rated at say £900 a year gross, with a ground rent of say £300, receive an allowance of one-sixth, and are rated net at £750; whereas the building alone being subject to decay, and the sixth being a maximum allowance and always granted, the reduction should be on £600 only, and the net be fixed at £800. Such a method of adjusting inequalities as will occur to any of us would not of itself be unfair, and would be preferable to an invidious and expensive examination of premises for the purpose of determining what should be allowed in each case—a method that would put a premium on neglect and make dilapidations remunerative.

Secondly. It is proposed to place site values on the rate list to secure a remission of house duty on that part of the total annual value, inasmuch as a house duty becomes an onerous land tax when levied in respect of anything more than the house itself. However desirable this remission might be, it would clearly not be consistent with the views of those who desire to see the site value taxed *per se*. If the house duty were transferred to local authorities there would be less reason for this separation, as relief would be given to this extent to local charges, and the proportion chargeable to sites might be deemed to be a tax on ground values.

But what are ground values? They are not necessarily the rents reserved under building leases. A ground rent may be much more than the ground value —including a first charge on the building; or it may be much less—excluding some portion that has been capitalised. Lessees may have sufficient reasons for demolishing houses good enough for ordinary purposes and substantial enough to secure an adequate rent to the freeholder, and there may be erected thereon a palatial

edifice, for the site of which the freeholder will require a rent almost equal to the rack rent of the demolished houses. To call such rent a ground value would be absurd. I do not think it would be impossible to get a definition, but to be placed on the statute book it must be one that shall be self-contained, and that may indicate an amount independent of, but not necessarily dissimilar from, any payment disclosed by a lease In some cases an ideally just value would not be reached, but it would not be impossible to attain one that would answer the purpose.

With regard to new ground rents or site values under new contracts, it seems to me impossible to escape the conclusion that their direct assessment would relieve the lessee of so much of the rates as would naturally attach to the rent, and that therefore the lessor could claim an equivalently higher rent. Where it is possible to localise a benefit, I see no reason why the entrant into advantages secured at public cost should not be required to contribute thereto, but this is an entirely different proposal to that which would levy a rate on those who had not benefited and who might have already incurred all necessary outlay.

Again, it would be inconsistent and unjust to place on the rate book vacant building land kept out of the markets partly by reason of rates that rendered it sterile. This, with cognate questions, is still receiving the attention of the Commission, and will, I have reason to believe, form the subject of further memoranda. It is alleged that rating would force land into the market, but there is melancholy evidence in the suburbs of unsuitable land being artificially forced into the market in past years. If some of the swamps of Canning Town and Barking had not been prospected as building land the

serious difficulties presented by East London problems would not be with us. Is there any logical difference between coercing an owner in respect of breadth of user and coercing him in respect of height of user? If there is none, why should not owners of suitable sites be compelled to let them for artisans' dwellings six or eight stories high and so avoid the necessity for the intervention of local authorities?

Question 12 is an interesting one, but too lengthy to discuss in full. It raises the principle of deductions from rents of the whole or portions of rates, and the possibility of reaching a site owner through the occupier by permitting such deductions as in the case of income tax. But a tax on all incomes is on an entirely different footing to a tax upon a specific class of property. Income is income, whether it be £100 or £1,000, but a rent is not a value that is of equal density throughout. A deduction from a ground rent, even proportionately to the rack rent, may be an unfair one for the reasons already mentioned, inasmuch as part of the value to be taxed may have been taken away by the speculating lessee or original owner. A site may have been increased in value to the sole benefit of the lessee, while sites held in perpetuity or on "chiefs" could not yield a lessor any profit that would justify deductions from agreed rents.

The Commission finally is desirous of receiving suggestions as to raising revenue for local purposes otherwise than by rates. It is scarcely within the sphere of our professional duties to devise new taxes, but we may be disposed to record a protest against a suggestion for levying "octroi" on goods brought into municipal areas. If either "town" or "country" is to have fair play, it is essential "not to tax anything which can be brought "into a city, and not to tax anything which can be taken

" out of a city." Mere stallage or market dues of course may be allowed.

Personally I am in favour of a municipal death duty on all property within the municipal boundaries. It has in it the elements of a sounder policy for providing for special outlay than a rating basis possesses. In rating, all investments, from a 10 per cent. weekly rental in a decaying lease to the finest freehold, are treated as equally affording ability to pay, and the tax is taken from the living owner, or occupier if you will. A dead man's hand is unloosed, and a municipality may fairly escheat to its own use a portion of the increment that has accrued; while a decrease in the capital value will also be provided for. In towns the hardship, if there be one, in such a tax on real or rateable property, would not be nearly so severe as in rural districts, inasmuch as town property may be divided, if a sale be necessary to provide the tax, without depreciation, in a way that rural land does not allow of. No pecuniary loss would occur, as the rateable value would not be reduced, but merely divided, and the tax would stick where it fell. An additional death duty with an equivalent tax on ground rents in the hands of corporations would be just compared with a tax on present rents. I am aware that objection is raised on the ground that a dual levy would be made, first on the tax and then on the full annual value by rating, regardless of the abstracted capital. But if the theory that owners ultimately pay either the whole or some portion of rates on houses or ground values be worth anything, it is economically immaterial whether an owner secures less in income while living or his legatees get less capital when he dies. If he is taxed while living he can save less or spend less. If his estate is to be taxed on his death he can spend in full or save

a sum to meet the posthumous demand note. Some local outlay must needs come out of income, but some may well be provided for out of the capital of the inhabitants by death duties.

I would further submit for consideration here (it has been, of course, suggested elsewhere) whether alterations in the methods of raising and repaying loans might not afford some relief. Why should not a portion of an outlay for an absolutely indestructible improvement be made, if not an absolutely permanent charge, at least repayable over a much more extended term than is usually permitted. Who benefits, besides financiers and brokers, by continual borrowing and repaying under conditions which render it necessary for towns to borrow for certain purposes and to become lenders for other purposes? The cost of a perishable improvement ought undoubtedly to fall upon the users, and the repayments for such work should be graduated according to its probable duration. But there is no parity whatever between the provision of a dust destructor and a contribution towards the purchase of a public park. Why saddle one generation with a burden that might be divided between two, three, or four. There is the more reason for this from the fact that the great movements of sanitary, social, and educational advance have all developed within the last half, almost within the last quarter, of a century. We may well assume that the increasing wealth of the nation will more easily in the future take a burden that is onerous now. The assets represented by open spaces, widened streets, sanitised areas, sites of schools, free libraries, and municipal buildings will themselves assist to strengthen the burden carrying capacity of future generations. These assets are valuable properties, and represent a sum of which a

portion might be assumed to be debentures redeemable at the option of the borrower. The counsels of perfection applicable to national debts have no place here. These have been incurred for the most part for more or less harmful purposes, and are represented by no tangible assets. They are destructive; municipal debts are generally speaking constructive. The redemption of one is a matter of prudence, becoming an insurance fund against future needs, although we have seen this matter trifled with on inadequate provocation; while on the other hand few municipal creditors are anxious about their securities, and a permanent debenture would be as marketable as a terminable annuity. Trade loans should be paid off out of profits, and with regard to these the borrowers should be encouraged to repay by the device adopted by the Treasury of increasing the interest charged with the length of the term, a device which appears indefensible when applied in every case. An alteration on these lines would relieve the occupier or leaseholder from the first incidence of the surcharge for capital, and would in effect leave the absolute owners, whoever they might be, liable for the corpus of the loan, inasmuch as a rate for its extinction would, under generally received conclusions, diminish values. In the event of the London Water Companies being bought up, why should their permanent assets become perishable assets in the hands of a Water Trust? Of course trade fixtures and goodwill, and all akin thereto, must be written off, but absolutely available or resaleable property might be differently treated.

According to a recent return of the County Council, the debt of London secured on the rates is over 43 millions, involving a charge of about 1½ millions for repayment, being about £316,000 a year more than the

charge for interest, and roughly representing a rate of about 1s. in £. If the repayments were suspended as to part only, and spread over a long period as to the remainder, a large portion of the money needed for immediate improvements might be borrowed without increasing the burden on occupiers or owners.

I have not dealt with the whole subject, or at all adequately with parts of it, but I fear I have succeeded in trying your patience. I should have been glad to have examined more in detail the arguments advanced by Mr. G. H. Blunden, that local rates on houses are actually, as well as seemingly, borne by occupiers in ordinary cases, and that one remedy is a division of rates between occupiers and owners of houses and of sites, even where contracts require occupiers and lessees to pay all taxes, defending the proposal partly on the ground that a general income tax would not produce that effective taxation of the owners of site values which the present conditions justify. But these proposals will doubtless meet with some objectors in the discussion. I am at one with Mr. Blunden in believing that it is not so much in rural districts as in great towns, and some smaller ones, that the pressure of rates, *and rent*, is felt. The farmer's remedy is much nearer at hand. His landlord has to face the elementary and inevitable fact that land, according to the old signboard legend, "bears all," and that any large remedy in time of depression would render it impossible to resist reaction under better conditions. While I cannot, however, admit that because the final incidence of a rate is long delayed, its natural and inevitable resting place is not equally on owners, there is much more reason for intervention on behalf of urban ratepayers to secure relief while economic laws are working. It appears to me sound policy to hasten

the incidence to its final goal by all equitable and honest means, and I am satisfied that owners would gain rather than lose by an early transfer of their just burden. Anything which raises the physical or moral tone of a community, and which enables its members to successfully compete with outsiders, must tend to the benefit of the capitalist. But other capitalists than the owners of land are benefited, and I am entirely puzzled by an argument which suggests that a great public good, such as extended education or the provision for a nation's poor, should be made to fall absolutely upon ground rent or landowners.

I will venture these further general observations.

That taxation is a necessary evil, and that, whoever may appear to pay, it comes out of the property of the whole nation, which is to that extent handicapped in its race with other nations; that a low taxed locality is not necessarily a rich locality, although it may be comparatively prosperous, and that the unfortunate exodus of rural labour and its absorption in urban districts indicates that both higher rent and higher rates are recoverable from employers in higher wages.

With regard to the shifting of rates, it is a fallacy to assume that because a tenant does not get his rent altered once a year a shifting process does not go on. An owner may pay a penalty in having a house empty or a farm vacant if he insists upon a rent which does not take into account the rates leviable in respect of it. Because the incidence is not immediate and observable, it does not follow that it is not real.

While bureaucratic centralisation is to be deprecated, and a healthy local spirit should be fostered, there are important matters necessary for the well-being of the whole community for which the nation rather than the

locality should pay. Included herein are education, the entire administration of justice, and the maintenance of highways. It ought not to be impossible to reconcile State payment for all these purposes with efficient and economical local administration. Whether the cost now be borne by occupiers or by owners, the burden would be more likely to reach capable shoulders if it were made a State charge. There are circumstances relating to the relief of the poor that would render a similar transfer of the entire charge open to serious objections. A transfer of these charges would prove beneficial to small owners, whose case seems in danger of being overlooked, and would not entirely free owners of large properties, These would pay in an income tax or some other equivalent impost.

Since writing this Paper I have seen a booklet on the housing question by the late Chairman of the Housing Committee of the London County Council. This contains an excellent epitome of the legislation on the subject, a concise statement showing the necessity for action, and a summary of what has been done by private enterprise and by public authorities to meet that necessity. It is to be regretted that so good a case should be spoiled by the suggestion of a so-called "Important Remedy" that cannot but distract attention from more practical methods, and alienate sympathy in quarters where it should be sought for, and further that there should be used, as typical examples of ground rents, cases that can exist only outside any values that a surveyor can possibly have met with in ordinary practice. Mr. Alfred Smith advocates the taxation of site values apart from the values of buildings thereon. He gives several examples of which these are some: (1) business premises in the West End

with a rent of £1,000 a year, of which the *building* represents £150 and the *ground rent* £850; (2) a residence in a central neighbourhood with a rent of £250 a year, of which the building and site values are £150 and £100 respectively, and he deduces therefrom that the taxes levied on the site values of the respective totals are about £30 per cent. and £62 10*s.* per cent. respectively. He compares these figures with a levy of 150 per cent. on the value of a ground rent on a small house in an outer district. A City illustration is given: rent £500, of which £400 is ground rent and £100 building rent, giving a rating of 31¼ per cent., as compared with 150 per cent. on a suburban site value of £20 out of a total building and site value of £120. It is sought by these figures to justify an equal taxation of site values, taxation of vacant building land, and also of agricultural land having a building value.

These results are reached by assuming that *all rates* fall on ground values—a view that has been advocated in high quarters (but, as Mr. Blunden points out in his "Local Taxation," not recently), then by further assuming that if ground values were equally taxed, the higher valued land (in the City, &c.) would assist the lower valued land, and bring it into the market. But surely the important fact is here overlooked that if relief were then given it would go into the pockets of the owners of uncovered land, who could then better wait for a rise in values. Further, is it not likely, on the other hand, that a taxation of building land would compel a weak holder to sell to a strong holder who could afford to wait, and would be more capable of making a "corner?" These combined processes would maintain, if not enhance, prices. I cannot see what good purpose is to be served by such arguments. The housing question is much more likely

to be solved by taking people into the country, than by compulsory conversion of agricultural land into unripe building land, nor do I think it other than a kindness to draw attention to such ineffective remedies for so serious a social malady.

Our own City presents problems which press heavily upon every man who has any municipal conscience, to say nothing of human emotions, and no doubt if we could have been consulted when it was founded, and could have foreseen the magnificent proportions it would attain to, we should have advised our clients, the real City Fathers, to have appropriated the greater part of four counties as a site for an untaxed metropolis. But we have to take things as we find them. We cannot overlook the fact that, however high rates may be, they are for the greater part expended within the City on useful commodities and wages, and that the debt represents the accumulated savings of the people; while we may well be satisfied with the potential wealth to become available for distribution among members of benefit societies, insurance offices, &c., when existing leaseholds shall come into possession, and with the thought of the sums which death duties will realise when the great leasehold estates change hands as freeholds in possession.

The science of taxation and its incidence is a modern one. It has no exact methods. Its ultimate truths can only crystallise slowly, and it is unlikely that the present Commission can do more than assist in this process. Towards this end the Memorandum they have issued will certainly be of the greatest value, and if this review of some of its contents directs your attention to it I shall have done something. My remarks may serve as pegs upon which abler speakers may hang their comments,

and the discussion may show to future generations of Members that we were alive to the needs of our time, and were honest searchers after truth even in the bewildering ways of social economics.

Mr. A. Dudley Clarke (Fellow) said he thought Mr. Sabin deserved the very hearty thanks of the meeting for the thoughtful and lucid way in which he had dealt with some points connected with this important and complicated question in a Paper which would prove a valuable addition to the *Transactions* of The Institution. Until this question was settled on some fixed and equitable basis, he thought no session of The Institution ought to pass without its being brought forward.

The text taken by Mr. Sabin was a memorandum by Sir E. W. Hamilton of which he could fully appreciate the value. Mr. Sabin also dealt with the thirteen questions propounded by the members of the Commission for obtaining the opinions of experts, but made, he considered, a somewhat unfortunate beginning when he said: "With the first four questions submitted "by the Commission to the sixteen experts consulted "we need not trouble ourselves. They will afford ample "opportunities for dialectic skill." That was, he thought, a rather serious omission, for the first four questions related to the classification of rates. As all knew, there were rates *and* rates, and before discussing the incidence of a rate he thought it well to inquire as to the nature of the expenditure covered by it. Take, for instance, the Poor Rate, the Education Rate, and the Main Highway Rate,

which were more or less onerous, as being claims upon the community at large and not upon the owners of real property merely. They were entirely different from Drainage or Sewer Rates, which were beneficial. The incidence of the one class of rates ought to be different from the other. He thought he was justified in advocating this line of division in view of the leading questions addressed by the Chairman of the Commission to Mr. J. F. Rotton, Q.C., of the Local Government Board, the first witness. There were also a lot of intermediate rates which were partly onerous and partly beneficial; as, for instance, the Police Rate which was onerous to a certain extent in that it benefited the whole community, and the Government had, for sometime past, discharged their liability to the community by payment of half the cost. The other half, he apprehended, was entirely beneficial to the district in which the police were employed.

Perhaps it was hardly fair to complain of the omission of these points from a Paper which was otherwise so excellent, but he thought that no discussion of the subject could be adequate which did not take them into consideration. It was extremely important that the classification of rates should be dealt with, as well as the question of their incidence. There was, he thought, a serious want of proportion in the Paper owing to this omission, which was in fact the omission of all reference to the share which personal property ought to bear.

The terms of reference would show what ought to be considered in deciding a matter of this kind. They were, "To inquire into the present system under which "taxation is raised for local purposes, and report whether "all kinds of real and personal property contribute

" equitably to such taxation, and, if not, what altera-
" tions in the law are desirable to secure that result."

Now Sir E. W. Hamilton, in his memorandum, travelled over the whole ground of that reference; but Mr. Sabin had only dealt with one portion of it, and he thought, in view of the importance of what Sir E. W. Hamilton said, and of the fact that Mr. Sabin had taken that memorandum as his text, it would be as well to see what were the concluding remarks of Sir E. W. Hamilton. He would summarise them thus: "Imperial taxes give
" rise to little complaint, which is fairly good proof that
" they are not seriously objected to, whereas local rates
" are a source of constant complaint owing to the fact
" that personal property escapes its direct share of the
" burden, as it has done, also from the land tax. Im-
" perial taxation is largely proportioned to ability, but
" local taxation has to be proportioned also to benefits,
" and, in suggesting any means of redress, we should
" keep in view the distinction between local expenditure
" which is onerous to ratepayers and expenditure which
" is beneficial to ratepayers."

He agreed with many of the conclusions to which Mr. Sabin had come—for instance with regard to the ultimate incidence of the Poor Rates upon the owners rather than upon the occupiers, from whom they were collected, and he concurred with him in his disapproval of the division of rates between owner and occupier, from which he could see no benefit likely to arise. But he found it stated that landlords netted a proportion of the rates remitted by the provisions of the Agricultural Rating Act. He was not prepared to say that it was not possible for some landlords to so benefit eventually, and he saw no reason why they should not. If it was felt that the land of this country was rated higher in proportion than other

property, and Parliament, in its wisdom, chose to remit half of the rates, he saw no reason why the landlord (if he were shown to be the person who ultimately bore the rates, and to be unfairly burdened with them) should not participate in the benefit derived from their remission.

The next very important point which struck him in connection with the Paper was Mr. Sabin's proposed remedy, which was to impose a municipal death duty on all properties within the boundaries of a locality. He did not know whether he was quite right in assuming that this municipal death duty was to be entirely confined to real property, but he thought from what Mr. Sabin had said that he was justified in taking that to be his proposal. Surely Sir William Harcourt in imposing the imperial death duties, had placed as great a burden on real property as it ought to bear; but in Mr. Sabin's scheme, instead of bringing personal property into contribution towards the expenditure of Local Authorities, it was left entirely out of the question, although there could be no doubt that it benefited very largely from a great proportion of the local expenditure. It was proposed that real property should pay, year by year, the charges of local taxation, and then a fresh impost on the death of the owner, from which personalty would be free.

He saw no objection to an extension of time for the repayment of loans. Probably a certain amount of relief from the pressure of local taxation might be obtained in that way. Mr. Sabin admitted, however, that education, administration of justice, and maintenance of highways were for the well-being of the whole community, and for such the nation ought to pay. He was at all events glad that he made that admission; but he thought it only fair that there should be some means of making personal

property contribute to those charges in a more effective way than at present by means of subventions, partly from the Consolidated Fund and partly from the death duties —real and personal property both contributing to the fund out of which the relief issued, notwithstanding some metaphorical ear-marking. In his opinion it would be much fairer if a fund could be created, from contributing to which, real property would be altogether free.

He was rather surprised, after Mr. Sabin's admission that education, administration of justice, and maintenance of highways were proper subjects of burden for the nation to bear, to find that he thought differently with regard to the relief of the poor. He, the speaker, thought that the cost of the poor was a more onerous charge upon the whole community than any other. It was almost the oldest of all these charges, and in the first instance (of course this was a matter of history with which all were familiar) it was imposed upon persons according to their ability to pay, and not upon any particular class of property; but now it had, for some years past, drifted entirely into an impost on real property, which alone bore the cost of it.

The Paper embodied such a great deal of very useful matter in a small compass that he was reluctant to complain, but by the important omission that he had referred to the author failed, he thought, to utilise his text in a way best calculated to convey the full scope and meaning of the very valuable memorandum from which the text was taken.

Mr. Willis Bund (Associate) said he had much pleasure in seconding the motion which Mr. Dudley

Clarke had proposed. He did not feel at all competent to criticise the very able and very learned Paper, but there were one or two points to which he should like to call attention, because he thought that they indicated (or to some extent indicated) a very real danger; and as to one of them, he certainly ventured to differ entirely from Mr. Sabin. He viewed with the greatest possible apprehension the increasing facilities in the matter of loans, and the increasing demands which were made by local authorities upon the ratepayers He thought the amount of indebtedness of local authorities, which was shown by Mr. Sabin to be running up at about three-quarters of a million a year, was one of the great evils which would have to be faced in the future. Anyone who carefully considered—particularly anyone who had largely to do with real property—must see the very great danger to which this system gave rise. He did not pretend to possess a special gift of prophecy, but he thought it safe to predict that in another twenty-five or thirty years, if things went on as they were now going, we should be face to face with very grave agrarian difficulties.

We had now to meet the question whether the country landowners were prepared to accept the present value of land as the ultimate amount which, within a reasonable time, they could expect to get for it. For it appeared to him that the annual increase of the rates, especially the increase due to interest and the paying off of borrowed money, meant that any prospective increase in the value of land would be absorbed in the rates.

It was pointed out by Mr. Sabin that all would come on the land ultimately, and on every readjustment of

rent if, through rates, outgoings increased, the landlord would get less and less rent.

He had in his hand—worked out—the produce of a penny rate for the last ten years in Worcester, and in the rural unions they had just about held their own, and that was all. If rates went on increasing as at present (and they must increase with the new additional duties that were put every day on local governing bodies) more money must be spent, so that landlords' incomes would be reduced. It seemed to him to be reaching the point when their incomes could not possibly exceed the present amount, and would probably be much less.

That, he thought, was a most serious outlook, and it appeared to him to be a solid reason, not for giving greater facilities by spreading loans over longer periods, but for doing all we could to check the incessant borrowing which local bodies now indulged in, and which was brought about by two causes. In the first place, many of the men who composed the governing bodies were persons whose assessments were very small, who thought that if they borrowed money they would pay still less, and that their rates would go up hardly appreciably. Such men did not think of what the future would bring. In the next place, local bodies were constantly urged by the electors, the bulk of whom contributed nothing at all to the rates, to carry out improvements which were no good to anybody but the electors, with the result that a very heavy charge was being put upon the landlords in country districts for what was really, to a great extent, the benefit of the urban districts, and thus persons who paid no rates were enabled to dip their hands deeply into the country landlords' pocket through this system of borrowing.

That seemed to him to be a great danger, and he was sorry to hear Mr. Sabin recommend that, by spreading the borrowing over a larger number of years, we should be able to borrow more freely and at a cheaper rate. The Government were largely responsible for driving local authorities into this extravagant borrowing. They dictated many things which they said *must* be done, without a moment's thought where the money to pay for them was to come from. For instance, provision was made for a lunatic asylum for holding, say, twelve hundred patients, but the Government raised their requirements for cubical capacity for the patients, and said: "It now "only holds 1,050—set to work and build a new lunatic "asylum." That asylum would involve a very large outlay to meet the present requirements of the commissioners. A local body could not build an asylum now under a cost of £275 to £300 a bed. It was a charge which must fall mainly on the landowners of the district, who derived no benefit whatever from it; but the lunatics had to be provided for at a very expensive rate, with the result that there was an increase in the rate every year to meet the Government requirements. That was one of the ways in which Government compelled increased expenditure. Then the Government imposed certain duties on the police with regard to matters such as the contagious diseases of animals and weights and measures, all of which involved extra cost and extra officers. These were all good and proper things, but all involved a rise in the rates at the cost of the landlord. He thought that all borrowing should be restricted far more than it was at present, and the only hope of keeping borrowed money within anything like proper limits was not to spread it over a larger number of years, but if

possible to shorten the periods of repayment. Money was borrowed for all sorts of things, such as asphalt pavements, steam rollers, and other things which were worn out long before the end of the term for which the loan was contracted, and yet all the cost had to be borne by the landlord.

The only other point he would refer to was one upon which he was directly at issue with Mr. Sabin. No doubt Mr. Sabin was right and he (the speaker) wrong; but he could not let it pass without notice. He seemed to think, if he understood him correctly, that the burden of rates fell harder on the towns than on the country districts. That he denied. The people in a town got a *quid pro quo* for almost every penny they spent. They got their improvements—it might be in the streets, or in a library, or in improved sewerage, or water supply, or in the thousand ways in which the money was spent. In many places in the country, where money was spent for one part of the county the people in the other parts of the county contributed, but saw nothing whatever of the results. Townspeople did realise the benefit of the improvements. The rates might press a little harder on them (he did not think they did), but they got the benefit of the expenditure. In a large county a great deal of money was paid in rates, and a number of the ratepayers got no benefit at all from the expenditure. That was a point which he thought Mr. Sabin had overlooked in his otherwise most exhaustive Paper, viz., that town ratepayers were able to realise the benefit (if it proved to be a benefit) of all the money laid out for them, while the country ratepayers did not get anything tangible, except perhaps better roads. For with the

exception of roads and police there was no appreciable benefit derived by them from their expenditure.

The vote of thanks having been put and carried unanimously, the further discussion of the Paper was, on the motion of Mr. Phillip E. Pilditch, adjourned to the Country Meeting at Leeds on the 25th and 26th of April.

DISCUSSION

ON THE

AGRICULTURAL HOLDINGS BILL, 1900.

(PREPARED AND BROUGHT IN BY MR. LONG AND OTHERS.)

At the Ordinary General Meeting of THE SURVEYORS' INSTITUTION *held on Monday, April 9th,* 1900.

JOHN SHAW (Vice-President) in the Chair.

Before opening the discussion, the Chairman said that several communications dealing with the Bill had been received from Members who, from various reasons, were unable to be present at the Meeting. Among them were the following.

From Mr. WILLIAM STURGE (Past President).

Section 2, Sub-section (2), is most objectionable. There is no reason whatever why a claim for compensation in respect of any improvement comprised in the First Schedule to the Act should be permitted to be deferred three months after the determination of the tenancy. It will greatly add to the difficulty of letting farms, as incoming tenants when treating for farms expect to have some idea what items they will have to pay for before agreeing to take the farm. There is in my opinion no hardship on an outgoing tenant in being compelled to give the landlord two months' notice in writing before the determination of the tenancy, as provided by the Agricultural Holdings (England) Act, 1883, Section 7, and I am of opinion that this provision should be maintained in the Bill.

Section 6. The abolition of penal rents by this section is objectionable; it will leave the tenant at liberty to break up old pasture land if he thinks that the profit by taking a crop of corn near the end of the tenancy would be greater than the damages he would have to pay.

Section 7 is objectionable if the tenant is allowed three months or more for the payment of his rent. The date when the rent is usually received is substituted for the day when the rent is actually due, and the rent recoverable by distress will be reduced to nine months or six months as the case may be.

Schedule I., Part III. (No. 26), giving compensation for the consumption of corn produced on the holding will give rise to much imposition, as there will be no check on the bonâ fide of the granary book or other record of such consumption.

Page 8. Time for award. The arbitrator should have power to extend the time for making his award for any period not exceeding two months. Application to the Board of Agriculture for power to extend time may possibly not be replied to before the 28 days have expired. Section 10, Page 10, gives two arbitrators power to extend the time for making their award to 49 days from the date of the appointment of the last arbitrator appointed, and I see no reason why a sole arbitrator should not have the same power.

From Mr. R. M. P. Parsons (Fellow).

Generally, I approve the Bill, but consider the 1883 Act should be repealed and a new Act passed which would incorporate the retained portions of the old Act and the amended provisions of this Bill.

Section 2, Sub-section 2. This clause would be most inconvenient to landlord and incoming tenant, and no advantage to outgoing tenant. Section 7 of the present Act should be retained.

Section 6. I do not approve this clause; if a tenant damages a holding by breach of contract he should be made to pay heavily.

Section 7. This would be very inconvenient in many cases and act detrimentally to tenants. The second part of Section 44 of the 1883 Act should be retained.

First Schedule (25) and (26) add, after the word "horses," "grazing "on the holding."

Second Schedule. Section 10 should be altered to read, "The award "shall fix a day *within* one month, &c."

From Mr. C. E. Linaker (Fellow).

I sincerely hope that such representations will be made to the promoters of the Bill as will lead (in Committee) to some of the defects being remedied.

I cannot say that I have found (in dealing with claims and counter-claims under the 1883 Act) any difficulty in settling claims under present provisions, but there seems to be a demand in certain quarters for amendment, and, if any is made, it should in all fairness be such as will not give either landlord or tenant any advantage.

In my opinion the greatest defect in the Bill in question is that contained in Clause 2 (2) which permits a tenant any time up to three months

after the termination of the tenancy to make a claim under the First Schedule. To have a claim hanging over a landlord or incoming tenant for three months after the outgoer has given up possession is preposterous and would lead to imposition and injustice, and it would preclude an umpire from seeing the real condition of a holding as it existed in the hands of the person making the claim. If the existing two months' notice is thought to be too long a period, then insert 28 days before the end of the tenancy, giving a landlord until 14 days after the expiration of a tenancy to make his counterclaim.

I also think that there should be conferred upon the landlord an absolute right to make a claim for dilapidations and waste under the Act, irrespective of any claim made by a tenant for compensation.

The existing right of a landlord to take into account waste for so many years should, I think, be maintained. The inclusion of home-grown corn in Part III. of Schedule I. cannot be objected to, but some safeguard should be adopted to prevent imposition—the production of grinding accounts, the keeping of a tillage book showing the cropping of the tillage land, should be made imperative if claims are to be made under this head, such tillage book to be open to the inspection of the landlord or his agent on his giving notice to the tenant.

I think, too, that the making of gardens, orchards, and osier beds in Part II., Schedule I., should be limited to farms of 50 acres and upwards. It might be anything but an improvement for a tenant to make an acre of garden, an acre of orchard, and an acre of osier bed on a small tenement of 15 or 20 acres.

Several farmers' societies have advocated compensation for continuous good farming and for disturbance, but with these I do not agree. It is assumed that farmers cultivate their lands in the best possible manner and all agreements provide for this, and the percentage of undue disturbances is too small to justify the adoption of a course that would enable a tenant to make himself a nuisance to his landlord.

From Mr. C. G. Bolam (Fellow).

I am, and always have been, averse to an Agricultural Holdings Bill. I think in these days landlords and tenants can make their own arrangements, and if not public opinion would in a measure put pressure on. A good county tenant-right would, in my opinion, be preferable. I am afraid the introduction of home-grown corn will lead to a great deal of confusion and difficulty, and the incoming will be rendered expensive and unsatisfactory.

I have at the present moment a case which rather confirms me in this opinion.

From Mr. H. S. Fenning (Fellow).

I have taken a great interest in the proposed new legislation, and hope that it will be the unanimous verdict of the members of The Surveyors'

Institution that, while fully recognising the importance of a fair and proper remuneration to the outgoing tenant for those legitimate improvements to the holding by *clean cultivation* and *increased fertility*, it is most important to protect the interests of the incoming tenant by not burdening him on his entry with too high a valuation, which, unless he is a man of means, would cripple him for the whole term of his tenancy, especially if (as there is good reason to fear from past experience) much of the supposed increment of value is visionary.

Also bearing in mind that in many cases the incoming tenant will refuse to take a holding with such an incubus upon it, and the wretched impecunious landlord, already at his last gasp, will have to buy up a great portion of the outgoer's valuation to obtain a tenant at all.

From Mr. W. H. WELLS (Fellow).

Clause 1. Both this Bill and the Act of 1883 enact that the compensation shall be for such sum *as fairly represents the value of the improvements to an incoming tenant.*

Now as far as my own experience goes I must say that I consider some valuations under the Act of 1883 have hitherto been carried out more on the principle of allowing for all cake and feeding stuffs on vouchers produced, rather than on consideration of whether they have been used in such a manner as to constitute an improvement to an incoming tenant. Generally speaking I should say, without hesitation, that in some cases I have been concerned in, the feeding stuffs allowed for by the valuers have been of no value to an incoming tenant, owing to their being consumed too much on one piece of land (like a pig's orchard), or owing to the arable land on the farm being left in such a foul state as to annul the benefits to an incoming tenant. Now it may be said that this latter is a question of counter-claim, but is it not a fact *well known* that foul land is never *fully* allowed for in valuations, especially in wet seasons?

Now that home-grown corn, produced on the holding and fed thereon, is to be compensated for (First Schedule, Part III. (26)), it is more important than ever that the compensation should, as enacted in the Bill, *fairly represent the value of the improvement to the incoming tenant.* I think myself that it would strengthen the hands of valuers and arbitrators in carrying out the apparent intention of the Act of 1883 and the Bill under discussion (when it becomes law) if there was added to Clause 1 of the Bill something to the following effect:

1st. That no feeding stuffs are to be allowed which have not been properly distributed in use throughout the holding.

2nd. That compensation for any feeding stuffs used on the holding is not to be allowed unless the arable land is generally in a clean state and free from couch.

I think it a pity that the words of the 1883 Act as to the *Inherent capabilities of the soil* have been struck out.

Clause 2. I consider the proposed abolition of the two months' notice required by the Act of 1883, in case of a claim for compensation and the

substitution for this notice, that a claim can be made up to three months after the termination of a tenancy, to be a most unfair condition for incoming tenants as regards Schedule I., Part III., and that it will hamper the reletting of farms, in many cases considerably, and tend to help "bogus" claims, as the longer such claim is put off the greater the difficulty in getting evidence of past employés and labourers on the farm, &c.; and, besides this, the delay in not knowing how he stands in taking to a farm till so long afterwards does not seem fair to an incoming tenant.

I think when application to the Board of Agriculture to appoint a single arbitrator is made by *one* side, that the Board of Agriculture should give the choice of two or three names, not force *one* selection of arbitrator *only* on the parties concerned.

It appears that in repealing Clause 6 of the 1883 Act the new Bill does not propose to allow rent, taxes and rates due from an outgoing tenant to be a "set-off" as previously to a claim. This seems unfair.

Clause 6. I consider the abolition of a penal rent in such a case as the "breaking up of pasture" to be a mistake and injurious to property.

Clause 7. I consider the further limiting as to the law of distress to be detrimental to tenants, as it will prevent kindly-disposed landlords from giving so much grace as is now usual in many cases. Such deviation from old customs can only cause friction and dissatisfaction, especially among the more ignorant class of tenant, and this clause to me seems especially ill-considered.

Clause 9 does not seem to make it very clear when the 'determination "of tenancy" is to be in the case of overholdings.

From Mr. R. T. STURGE (Fellow).

Without attempting to review the provisions of the Bill in detail there are one or two points I should like to refer to.

Section 2, Sub-section 2. The effect of this will be that a tenant, without any previous notice, may make a claim for "improvements" up to three months after the expiration of his tenancy.

I regard this as most objectionable, and think any claim should be made by the expiration of the tenancy at latest.

Section 7, Sub-section 1. Rent not to be recoverable by distress due more than a year previously, the time of grace usually given for payment, and allowed in the present Act, being ignored.

The effect of that will be that a whole year's rent will not be recoverable by distress unless levied on the very day the rent falls due. For instance, supposing a year's rent to be due at Lady Day, unless distrained for *on that day* it will be "out of time," and only three quarters or half a year's rent, according to the terms of the agreement, would be recoverable. In my opinion no alteration should be made in the provisions of the existing Act in this respect.

The CHAIRMAN said that this additional Ordinary General Meeting over which he had the honour to preside, was specially convened for the purpose of considering the Agricultural Holdings Bill now before Parliament, and with a view to the full and practical discussion of the whole question.

The many attempts which had been made in past years to legislate upon this matter, first resulted in the Agricultural Holdings (England) Act of 1875, which was repealed by the Act of 1883.

By the Bill now under consideration it was proposed to partially repeal the Act of 1883, in the following way :—

Section 1 was to be entirely repealed, but the whole section was, practically, repeated in Clause 1 of the Bill (except the four last lines referring to the inherent capabilities of the soil).

Section 6.—As to regulations for compensation for improvements.

Sections 7 to 16.—As to procedure.

Section 17 (part of).—As to an award being subject to appeal.

Section 18.—As to the reference, the award, and the umpire.

Section 19.—As to the award giving particulars.

Sections 20 and 21.—As to costs of reference.

Sections 22 and 23.—As to appeal against an award.

Section 24 (part of).—Taking out the words " or " ordered on appeal."

Section 29 (part of).—Referring to power of a landlord to obtain charge of tenant's compensation.

Section 44.—As to distress.

Section 57.—As to compensation being exclusive, under the Act.

Section 61.—As to definition of "manures" and determination of tenancy.

It was also proposed to repeal the whole of the First Schedule in the Act of 1883; but to re-insert the same schedule in the Bill with some alterations and additions.

Sub-sections 2 and 3 in Section 3 of the Market Gardeners' Compensation Act, 1895, were also to be repealed.

It was, therefore, proposed to enact all the clauses and schedules contained in the Bill, and to continue the unrepealed sections of the Agricultural Holdings (England) Act, 1883, viz.:—

Sections 2 to 5—17 as altered—24 to 28—29 as altered—30 to 43—45 to 56—58 to 60—61 as altered—62 to 64.

The Market Gardeners' Compensation Act, 1895, was also to be included, except the two sub-sections which were to be repealed.

There were also various sections of the Agricultural Holdings (Scotland) Act, 1883, and the Market Gardeners' Compensation (Scotland) Act, 1897, referred to in the Bill; and the Bill was to be applied to Scotland, subject to the conditions in Clause 10, but it was not proposed, in the present discussion, to deal at all with the question of Scotland.

The Bill, when passed, was to be cited as the Agricultural Holdings Act, 1900; and the Agricultural Holdings (England) Act, 1883, the Tenants' Compensation Act, 1890, the Market Gardeners' Compensation Act, 1895, and the now proposed Act, might be cited together as the Agricultural Holdings (England) Acts, 1883 to 1900.

The Bill appeared to be a fair attempt on the part of

the Government to improve the law relating to Agricultural Holdings; but he was strongly of opinion that if the Bill could be consolidated into one Act, with the sections to be retained in the principal Act, it would be more simple and more easily understood by those who had to carry it into practice. Such an alteration would, he thought, be a very great boon to the agricultural interest generally.

In the discussion which was to follow he proposed to take the Bill clause by clause, in the order in which it was printed. He would, therefore, begin with—

Clause 1, Sub-clause 1.

This was, practically, the same as Section 1 of the principal Act, leaving out the words referring to the "inherent capabilities of the soil," which were, he thought, very imperfectly understood, and he did not suppose there would be much difference of opinion on that point.

Mr. J. W. Kemsley (Fellow) said he should like to say a word about that. It was all very well to omit non-understandable words in the Act of 1883; but in view of the Act of 1895, the inherent capability of the soil, in the case of fruit trees 10 and 20 years old, was a very important factor, as he thought experience had shown. As far as the Agricultural Holdings Act went, there was no objection to the omission of the "inherent "capability," but he thought it was an important element in the Market Gardeners' Compensation Act. He had met experienced valuers who, acting for outgoing tenants, had admitted that half the value of a tree was due to the inherent capabilities of the soil. If one tree were

planted in a cold clay soil and another in an alluvial rich soil, the latter tree would be as big again as the other at the end of 20 years. He thought these words should not be allowed to be struck out without some protest.

Mr. H. LITTLE (Professional Associate) said he took it that the object of this Bill, and of the Agricultural Holdings Act of 1883, was to give security on capital—security to the landlord for his land, and security to the tenant for the cash that he put into the land, his industry, and for anything he did to the land. He thought "inherent capabilities of the soil" might be defined as that difference which one found on going from field to field in making a valuation, whereby one field was found to be worth so much more than another field. Was not that the inherent capability of the soil of that field? How, then, could the Bill, with those words left out, secure the capital the landlord had in the value of the soil? He thought the landlord was entitled to that, and that those words should remain.

Mr. F. J. SMITH (Fellow) concurred entirely with the last two speakers. He thought valuers, as a rule, did not take into consideration the inherent capabilities of the soil as applying to the Act of 1883; but in this new Bill there was incorporated the Market Gardeners' Compensation Act of 1895, and in that particular case he thought the inherent capabilities of the soil would be vastly more applicable than in the case of the Agricultural Holdings Act of 1883.

Mr. J. R. Eve (Fellow) said he should be extremely glad to see the words expunged, for he had never been able to understand them, and was not ashamed to confess it. If the words meant anything they meant all the power that the land possessed to enable the farmer to grow his fruit or corn, and he should be very pleased to see the words expunged.

Clause 1, Sub-clause 2.

The Chairman said this was merely explanatory, and he would not trouble to ask any questions upon that.

Clause 1, Sub-clause 3.

This he thought there would be no question upon. It seemed only fair.

Clause 1, Sub-clause 4,

he considered proper, the principle being one which was now generally acted upon, but he should like some provision for an account, open to inspection, showing what hay, straw, roots, or green crops were sold off by the tenant from time to time, so that there should be no mistake in the valuers being able at the termination of the tenancy to act rightly in that respect. In his own and adjoining counties during the long agricultural depression no objection had been raised to the tenants selling off on the condition that they brought back a proper equivalent, but the difficulty, in his experience, had been to ensure that a proper account should be kept

so that when a man left his holding the valuer should have something to go upon.

Mr. J. R. Eve said he felt very strongly about this clause. He thought that, as it stood now, it would do great injustice to Middlesex and Hertfordshire farmers. They took their farms bare, and if they were called upon to return manures in respect of all they had sold off it would put them in the same position as tenants who were not allowed to sell their hay and straw—they would be penalised. He would suggest one word which he thought would settle the matter. He would have it read: "In the ascertainment of the amount of compensa-" tion payable to a tenant in respect of manures, as " defined by this Act, there shall be taken into account " the value of the manure that would have been produced " by the consumption on the holding of any hay, straw " roots, or green crops *improperly* sold off or removed from " the holding within the last *two years* of the tenancy or " other less time for which the tenancy has endured." If a tenant had a right to do a thing he thought he ought not to be penalised for doing it.

The Chairman said, as he understood it, the Bill was intended to apply to the country generally. In his own county of Derby, and in many counties in the north of England that he had to do with, the tenants, as a rule, were not allowed to sell off except by permission. It might apply in some cases, as Mr. Eve had suggested, but taking the Bill generally, as must be done, he doubted whether it would be safe to make the alteration.

Mr. Eve again submitted that the word "improperly" should be put in. If the tenant had no right to sell he would be penalised, but if he had a right to do so he should not be penalised. Surely that was justice.

Mr. J. W. Kemsley (Fellow) supported Mr. Eve in favour of the alteration, especially with regard to suburban farms.

Mr. A. Michelmore (Fellow) said he could not agree with the last two speakers. If a tenant were allowed to sell off, and the landlord were debarred from making a counterclaim by reason of that selling off, it surely was an injustice to the landlord. The tenant made his claim, and if the proposals of the last two gentlemen were carried out he could practically exhaust his farm, and the landlord would be left high and dry with a poor farm.

Mr. Daniel Watney (Past-President) said it seemed to him that this was a very good clause, and he could not agree with Mr. Eve.

In almost all leases or agreements where a tenant was allowed to sell off he was bound to bring back an equivalent (which was not always properly defined) in manure. Of course if he did bring back that equivalent he fully complied with the terms of his agreement, and he would not be liable under that clause in the Bill. But in the case of market gardeners everything was sold off, and he had noticed on several occasions that when the tenant's claim had been made in respect of manures, the landlord got no allowance for the roots and green crops sold off during the last two years. He must

say that he had not been very successful in his contention, but still he contended that if, under the Market Gardeners' Compensation Act, the whole of the produce was sold off, there ought to be some allowance made when a tenant claimed in respect of unexhausted manures.

Another question arose on this connection. He knew it was rather a moot point whether, under this clause, potatoes were roots. He held that they were. He knew there was a difference of opinion on that; but if a tenant grew potatoes and took them off, he thought the landlord was entitled to a deduction when a claim was made for unexhausted manures.

Mr. Willis Bund (Associate) instanced the case of a man who rented two farms, on one of which he produced a good deal of hay, straw, roots, or green crops, keeping his cattle on the other, and who took all his hay, straw, roots, and green crops from the one farm and consumed them on the other. When he put in a large claim for compensation, the landlord would say he ought to have consumed some of this on the farm where it was produced, as he would have done in the ordinary course of husbandry.

Mr. A. Buck (Fellow) said his experience was that when a man sold off he was bound to bring back some equivalent for that which he took away.

A previous speaker had said that if a tenant came on a bare farm this would be hard upon him; but he should mind what he was doing when he took the farm.

He thought this was a very fair clause, and he did

not think that the word "improperly" would improve it in any way.

He rather demurred to the limit of the last two years of the tenancy. A tenant might keep selling for the previous six or eight years, and take everything away. Therefore, in order to insure that an equivalent was put back, he would rather extend the two years.

Mr. H. M. Cobb (Fellow) said he thought no land wanted more manure than fruit land, and he agreed with Mr. Buck that it would be very unwise that a man should not be obliged to bring back manure on fruit ground. No land was so much improved by manure, or so impoverished by the want of manuring, as fruit land.

One clause in the old Act of 1883 was, he observed, to be, repealed by the new Bill. In the old Act the landlord was entitled to take into account any benefit that he had contributed. Secondly, he could counter-claim for want of manuring; and, thirdly, he was entitled to set off against the claim any rent that might be due. This last was completely struck out of this Bill, but he could not think it was wise to exclude it. Why should not the account be balanced? He failed to see the expediency of letting the parties go to law to enforce their claims, and he saw no reason why it should not be left as in the old Act under Sub-section c.

Mr. E. Eames (Fellow) said with regard to what was sold off within the last two years, that in the case of hay or straw which remained on the holding

because the market happened to be bad (though it was not the produce of those last two years), and although there had been a full and adequate amount of manure brought on the farm for other previous years, the tenant, on going out, had no set-off, which he thought was provided for by the old Act (Section 6, Sub-section (b)) "except as far as a proper return of manure to "the holding has been made in respect of such produce "sold off or removed therefrom." He mentioned that to show the difficulty that might exist when a tenant might wish to hold on for a better market. Yet that hay sold off during the last two years (although the produce of previous years) must be brought into account against the manures of the last two years, in spite of the fact that he previously brought on an ample amount of manure.

Mr. A. VERNON (Vice-President) said it seemed to him a not unreasonable compromise. A great danger to be avoided in such a discussion as the present was the regarding of the provisions of the measure as applicable only to particular small areas of land. It was intended for the country at large. The intention of the Bill was that the tenant should be fairly secured for the expenditure of his capital without injustice to the landlord. The section which Mr. Eames referred to seemed to him to be necessary for the security of the landlord It was clear from the remarks which had been made, and indeed was a matter of general knowledge, that unless the landlord were secured by some set off, if everything were sold off, it would be against the public interest and at variance with the object of the Bill. Land was continually deteriorating unless the soil was every year supplied with a

sufficient quantity of manure. He thought this clause in the Bill had been inserted mainly in consequence of the depressed state of agriculture in the country, but if the Bill was to pass and to be a lasting and useful Act it must be reasonable on both sides, and he thought there was a good deal in the suggestions made for its amendment.

Clause 1, Sub-clause 5.

The Chairman said he thought this clause was an important one for the tenant, and he did not think it unreasonable. It would also remove difficulties which had arisen so recently under Section 57 of the principal Act.

Colonel G. W. Raikes (Fellow) said he thought Sub-section 5 was very fair, with the addition of a few words which he would suggest. He would like to see added after "in lieu of" the words "but not in addition "to." His reason was, and he thought many present would agree with him, that there was often considerable difficulty in getting an incoming tenant to meet a valuation for a good crop of roots, and if that clause stood he saw nothing, on an ordinary tenant-right valuation taking place at Michaelmas and the incoming tenant paying (as he generally did now in the Midlands) for the crop as it stood, to prevent his having to meet a second claim, perhaps for a large sum, put in by the outgoing tenant three months afterwards, for artificial manure used in growing the crop already paid for. He thought it should be understood that if custom already compensated a tenant for any one thing he should not be allowed to claim for it under the Act.

The CHAIRMAN remarked that this clause practically altered Section 57 of the original Act, where a tenant was confined to claim in a certain manner. He would read Section 57 in the original Act. "A tenant shall "not be entitled to claim compensation by custom or "otherwise than in manner authorised by this Act in "respect of any improvement for which he is entitled to "compensation under or in pursuance of this Act, but "where he is not entitled to compensation under or in "pursuance of this Act he may recover compensation "under any other Act of Parliament or any agreement "or custom in the same manner as if this Act had not "passed."

Mr. BUCK remarked that that clause still stood.

The CHAIRMAN said Section 57 in the Act was struck out, but Sub-clause 5 of Clause 1 of the Bill was to take its place. Colonel Raikes had suggested an amendment on that.

Mr. HENRY TRETHEWY (FELLOW) said the word "otherwise" was objectionable. The only claim that could arise was under custom or agreement. The word "otherwise" might, he thought, open the door to a great deal of contention.

CLAUSE 2, SUB-CLAUSE 1.

The CHAIRMAN said this clause dealt with the settlement of differences by arbitration, and must be read with the rules as to arbitration in the Second Schedule of the Bill, and it appeared to be an improvement upon

the mode of procedure now existing under the principal Act.

Mr. H. LITTLE said in his opinion this clause would be a failure in that it duplicated the procedure. If the Board of Agriculture were going to take over the matter why should not they tax the costs or remove the arbitrator for misconduct? They took a great deal of power out of the hands of the County Court, and why should they go back to the County Court for those two things?

Mr. J. W. KEMSLEY said that the provision for one arbitrator was put in, he apprehended, to economise procedure, and no doubt all that farmers could get now in the way of economy was desirable, but his own feeling was that instead of economising, it would have the contrary effect. In all cases the parties interested had managed to muddle through with two men, without having recourse to the third, but no farmer or landlord who was wise, would leave his case to the single arbitrator under the Bill without some professional assistance, and therefore there would be three valuers employed from the first. He was inclined to think the remedy proposed really aggravated the disease that it was sought to cure, and, quite apart from any professional feeling, he was of opinion that it was a great disadvantage to those in whose interest it was proposed, and that the result would nearly always be the employment and payment of three valuers instead of two.

Mr. A. MICHELMORE said he could not agree with the last speaker. He thought the power of appeal

should be retained, as in the principal Act, when the sum was over £100. As the matter was now left with one arbitrator, the responsibility was, of course, greater, and the right of appeal should not be removed.

Mr. J. R. Eve said he agreed with Mr. Kemsley as to the one arbitrator. He would leave it optional to the parties to agree on the point. He should prefer to see the Arbitration Act, 1889, carried out. There were very few landlords, or tenants either, who pretended to be capable of preparing a valuation under the Act, and therefore they must of necessity call in professional aid. The result would be that there must be three arbitrators where two, as Mr. Kemsley had said, would suffice.

In the principal Act the arbitrator had power to summon witnesses. That power was absent in this Bill, but it was very important to those seeking justice. That power was also given in the Arbitration Act; but not under this Bill. This seemed to him to be a serious omission.

Clause 2, Sub-Clause 2.

The Chairman said this referred to an important question as to notice of claims. "A claim by a tenant "for compensation in respect of any improvement com- "prised in the First Schedule in this Act, shall not be "made after the expiration of three months from the "determination of the tenancy."

Under the principal Act a tenant must give two months' notice of claim before the determination of the tenancy, and when such notice was given the landlord might give a counter notice up to 14 days after the determination of the tenancy; but under the Bill it was

proposed that the tenant might extend the time until three months from the determination of the tenancy.

He thought it would be found necessary to amend this clause, otherwise the settlement of the arbitration or valuation would be delayed too long, and great inconvenience would be caused thereby, both to landlord and tenant. He thought it was not well to have a claim hanging about too long, and he would propose that the claim should be made by the tenant at least 14 days before the expiration of the tenancy, and that the landlord should then be allowed to make his claim at any time before the end of the tenancy, in order to shorten the time as much as possible. As a matter of actual practice he had, in many cases, agreed to dispense with notice of claim altogether under the principal Act; but he thought there should be a definite time fixed to meet any case of dispute, so that, if necessary, a settlement might be hastened. When he was asked whether he would dispense with the notice or whether the tenant should put in a claim, he frequently dispensed with the notice, which he did not think of so much importance, except when there was likely to be a dispute.

It might, perhaps, be taken as understood in the Bill, but he thought it should be made quite clear, that the landlord could make a claim for dilapidations in the same manner as a tenant could claim for breach of contract. It seemed to him there should be no difference on this point on the one side or the other, but that both landlord and tenant should be treated alike. He had found, in practice, great injustice done in some cases where a tenant had no claim to make and the place was much dilapidated, and, as a consequence of the tenant making no claim the landlord was also debarred.

Those who were old enough to remember the 1875 Act would recollect that it was there expressly stated that the landlord could not make a claim unless the tenant had made one. That was practically repeated in the 1883 Act. This Bill did not seem to be quite so clear. It certainly did not say that the landlord should *not* be able, but it did not seem to him to state his ability quite clearly enough.

Clause 2, Sub-clause 3.

The Chairman quoted the words of this sub-clause, viz.: "Where any such claim by a tenant for compensation is "referred to arbitration, and any sum is claimed to be "due to the tenant from the landlord in respect of any "breach of contract or otherwise in respect of the hold-"ing, or to the landlord from the tenant in respect of "any waste wrongfully committed or permitted by the "tenant, or in respect of breach of contract or otherwise "in respect of the holding, the party claiming such sum "may, if he thinks fit, by written notice to the other "party, require that the arbitration shall extend to the "determination of the claim, and thereupon the provi-"sions of this section with respect to arbitration shall "apply."

It seemed to him that under this it might possibly be taken that the landlord had the opportunity of making his claim, but it did not seem to him to be quite clearly stated that he had. He should like to see that provision made clearer, so as to put the landlord in the same position as the tenant.

Mr. Willis Bund quite agreed with what the Chairman said about the three months' claim, and

that it ought to be made before the expiration of the tenancy, otherwise time was given to the tenant to look about to see whether he could trump up a claim. That was what it came to. If it were a *bonâ fide* claim it could well be made before he went out. If it were not, he might only be going about to try to collect materials for it. He agreed that it ought to be open to either party to make a claim irrespective of the other. He read the Bill like the former Act—that unless the tenant made a claim the landlord could not do so. He believed that this sub-clause was meant to do away with the somewhat startling decision that if the landlord's claim exceeded the amount of the tenant's, the landlord could not recover the balance under the Act, but was left to an action at law. He strongly felt that to give the tenant time to say whether he would make a claim or not, was really only inviting a claim to be made up against the landlord.

Mr. A. VERNON desired to point out that an honest claimant would always know whether he had a claim, two or three months before the expiration of his tenancy. Therefore it seemed to him that two months was not an unsatisfactory period, and that the old date had its advantages. He considered it to be absolutely necessary, in the interests of justice, that a tenant's claim should be made two or three months—say two months—before the expiration of his tenancy, and that the landlord should have at least until the last day of the tenancy, by which time he could assess the damages he claimed for. Such dilapidations on the part of the tenant might arise up to the very last day of his occupation.

Mr. H. Little said he quite concurred with the previous speakers. He feared the ordinary tenant-right valuation would drag along to the end of the three months or more unless it were made quite a separate thing altogether, and settled when the outgoing tenant went out and the incoming tenant came in (taking it for granted that a tenant would not hold over longer than the end of his tenancy). He thought the notice should be given quite two months before, and that the landlord should be able to counter-claim against it before the determination of the tenancy; any other arrangement would have a great effect upon the re-letting of farms. The landlord would say, "I do not know what I can "re-let this farm for, because I do not know what I "may be let in for yet." The incoming tenant would say, "I do not know what I shall have to pay—I think "I must wait a bit." So he thought there would be great difficulty in the case of both tenants and landlords under those circumstances. The landlord would not know what he could accept for his farm, and it would also unsettle the incoming tenant a great deal if other charges fell on him, and he would have perhaps to find more capital than he had expected. This would certainly have the effect of unsettling him the first year.

Mr. A. Buck said he thought this was a most important provision in the Bill, and he did not see how it was possible to work it as it stood. He wished those who drafted the Bill would take into account that some persons had only a limited comprehension of what was intended.

Sub-clause 2 of Section 2 set out that: "A claim by a "tenant for compensation in respect of any improvement

" comprised in the First Schedule of this Act shall not " be made after the expiration of *three months* from the " determination of the tenancy."

Then the Bill went on to say (in the third sub-clause) how this was to be done. The claims of the landlord and tenant were to be settled, but it said nothing about when the landlord's claim was to be sent in. Judging from what had passed with regard to this, he apprehended it was put in to meet what was thought to be an injustice, for the claim of the tenant having been made two months before the expiration of the tenancy the landlord had ample time to make out a counter-claim to meet it. The landlord could not possibly make his claim until the determination of the tenancy. He should have thought that the claims ought to be sent in simultaneously, not later than the expiration of the tenancy. Both parties would then be in the same position, and the one would not have to wait for the other. He did not see how it was possible to deal with the letting of a farm under the suggested conditions. If it were said it was let subject to the rights of the outgoing tenant, it would be asked: " What is his claim ? " and the answer could only be: "I do not know now, but " I shall have the claim within three months."

There would be nothing to show what amount of food had been consumed, or what amount of claim the outgoer was about to make. At the present time there was some sort of basis of claim to go upon, which could be corrected afterwards, and when a tenant came to take a farm, one could give him some information as to what the claim was likely to be, but under this clause there was no idea given. Tenants were becoming more wide-awake, and were more capable of entering into contracts than they were 20 or 30 years ago, and he did not think

they would be found ready to take farms subject to the claim of an outgoing tenant, without knowing at all what that claim was likely to be. He wished, for his own part, that the legislature would leave the whole thing alone. It had come at the wrong time,—it had come too late. He contended that the tenant farmers of England, and those who represented them, were perfectly capable of making a contract. They were neither lunatics, nor were they infants, and he thought the less that was done to interfere with their liberty the better it would be for the country. He agreed that in anything that was done for the good of the many all private interests must give way, but he could not see what harm would arise in this way if, as much as possible, both parties were left free to enter into contracts between themselves.

Mr. H. Hayward (Fellow) said he thought all agreed that Clause 2 was practically unworkable. In his district they waived the question of notice altogether in five cases out of six. There were so many valuations at Michaelmas that it was impossible to get them all over in time for the determination of the tenancies; but it seemed to him that both landlord and tenant should be on the same footing, and that the clause should provide that they both make their claim before the expiration of the tenancy, or on such day as the arbitrator or valuers meet to make the valuation.

Mr. F. Austen (Fellow) thought it would be found that when this Bill came into Committee, this objectionable clause would be withdrawn or materially altered.

He had the pleasure of attending a meeting of the Central Chamber of Agriculture lately, when this Bill was fully discussed. Mr. Elliott, the Secretary of the Board of Agriculture, was present, with two or three of his colleagues, and this clause was spoken of in such a manner that Mr. Elliott felt himself (the speaker thought) bound to explain why it came into the Bill. The reason which he then gave was that under the old Act there was practically no limit as to when a tenant might make his claim. It appeared that the thing might be allowed to drag on for a long time before he claimed for a valuation at all, and this clause was put in, he told them, to make a time limit within which a tenant might claim. But he (the speaker) thought Mr. Elliott was so satisfied with the remarks made on that clause that he himself felt little doubt that it would be entirely withdrawn or much modified, and that they would probably go back to the procedure of the 1883 Act.

Mr. J. R. Eve said it depended on what the alteration would be. If it were as Mr. Austen supposed, well and good. The landlord could not see, except in the case of buildings on farms, what the tenant was going to claim for. With regard to manure and foods used on the soil it would be impossible for him to gauge the probable amount of the claim, and there ought to be, in his opinion, not less than one month's notice given before the expiration of the tenancy, and the landlord should have a fortnight after that time to make his counter-claim. He did not think anything else would meet the justice of the case. There was one very important alteration in this clause. It was said in the old Act that a valuation should be subject to a counter-

claim made by the landlord "in reduction thereof." In other words it had, he believed, been decided in the courts of law that an award in favour of the landlord could not be greater than an award in favour of the tenant. That word "reduction" was now out, and the result would be that the landlord's claim could exceed that of the tenant. It was an important alteration which he did not say was in the wrong direction.

Mr. G. D. E. WIGLEY (Fellow) desired to support the last speaker. Three months after the expiration of the tenancy was absolutely absurd, and he thought, with Mr. Eve, that one month's notice previous to expiration was very reasonable. A farmer was not always a very business-like man, and no doubt when he ought to make out a claim, the time for making it sometimes escaped his notice. He was busy with his hay and harvest, perhaps, when he should be making his claim before the 29th of July for a Michaelmas tenancy. It was a busy season, and he knew of many instances where the tenant had absolutely forgotten and overlooked the notice, and had, in consequence, been shut out and lost his claim. A meeting of valuers of the Herts and Beds Association came to the conclusion that a month's notice would be fair and reasonable, by which time a tenant would know what he had to do.

Mr. C. W. TINDALL (Fellow) remarked that, in his opinion, there was a great difference between the question of claim and the question of time. He did not see why tenants under the Act should be put in a worse position than those under agreement. There was no question of claim under agreement, and he failed to see why there should be a question of claim under the Act. His

experience of claims sent in at present under the Act, was that they were practically not worth the paper they were written on, so far as the value of the claim given was concerned, his experience being that tenants did not know what to claim for two months before the determination of the tenancy.

He thought that if the time were settled the question of claim would settle itself. He had never known any difficulty to arise, under agreements, between two valuers as to what the claim of the outgoing or the incoming tenant should be. If the proper time were settled, that would be all that was required. With regard to the question of a month's notice previous to a tenant going out being detrimental to the letting of farms, he ventured to say that 19 farms out of 20 were let six months before the tenant went in: so he failed to see where the force of the argument came in as to the clause preventing farms being let. He did not say that there were not exceptional cases, but as a rule claims sent in under the Act did not affect the future letting of farms. They were never correct, and he had never known any difficulty in agreeing what value was left by the outgoing tenant for the incoming tenant. He believed that if the question of time were settled the question of claim would settle itself.

Mr. W. B. Canning (Fellow) said he agreed that in many instances farms were let at least three months before a notice of claim would be given; therefore lettings would not be affected by the period for serving the notice being shortened. He thought it would be better that the claim and counter-claim should be made at the same time, as he had known counter-claims, which could not be substantiated, made apparently with a view to outsetting the tenant's claim. He did not see any necessity

for giving notice of claim prior to the expiration of the tenancy, but would like to see the notices of claim and counter-claim made concurrently with the expiration of the tenancy of the main portion of the farm. To cover the omission to serve notice of claim two months prior to the expiration of the tenancy, notices had sometimes been served prior to the surrender of the overholdings, which was not intended by those who had prepared the Agricultural Holdings Act, therefore the period named should be concurrent with the termination of the tenancy of the farm.

Mr. J. A. EGGAR (Fellow) said he thoroughly endorsed Mr. Canning's suggestion that the claim and counter-claim should both be made at the date of the expiration of the tenancy. In many agreements there was a clause for holding over, sometimes three months or six months after the expiration of the tenancy, for the purpose of threshing out the crops. This holding-over period should not, he thought, be considered as the expiration of the tenancy.

The CHAIRMAN presumed that this only referred to special localities. There was nothing of the sort in the districts with which he was concerned, but he was aware that it did exist in some parts. This Act was, he supposed, intended to apply generally. For many years past, in his practice, there had been no arrangement of the kind, but it formerly existed largely in Cheshire, Staffordshire, and Derbyshire, and he thought a part of Nottinghamshire, but most of those customs as to holding over had been done away with. Endeavours had been made to determine not only what was overholding, but what was an "away going" crop. In the

counties with which he was familiar everything was cleared away so that matters could be settled at the expiration of the tenancy, whether at Michaelmas or Lady Day. Generally speaking, his tenancies were Lady Day tenancies, although he knew of a few of the old Martinmas tenancies still remaining.

Mr. WILLIS BUND thought that Clause 9, Sub-clause 2, dealt with the very point.

The CHAIRMAN said that was so. The sub-clause read: "For the purposes of the principal Act and this "Act, the expression 'determination of tenancy' means "the cesser of a contract of tenancy by reason of effluxion "of time or from any other cause, notwithstanding that "under the contract of tenancy or custom, or otherwise, "the tenant may quit different parts of the holding at "different times."

Mr. J. W. KEMSLEY said no doubt this question of notice was a very important one. He had more than once, at meetings of The Institution, expressed his individual opinion that it was undesirable to continue the two months' notice. He had known a great many claimants pose as martyrs because they had forgotten to give their notices. He had also known cases where the landlord waived the necessity for giving notice and the martyrdom had disappeared at once, because the tenant's case had melted as fast as he attempted to build it up. It was in order to do away with these martyrs that he advocated doing away with the notice. He did not believe that it would affect the letting of farms. As a previous speaker had said, farms were often let more than two or three months before the expiration of the

tenancy. If it were possible in any way to provide that both claims should be made when the valuers met, that would be a model way of dealing with the matter; but he foresaw difficulties in practice. As a speaker had said, it was almost impossible for all the work of these valuations to be done on the day of quitting, and there was necessarily a great deal of delay in connection with the pressure of work on those who were responsible for making the valuations.

He saw a good deal of objection to the two months' notice. It made men feel they were under an injustice if they were shut out because they had forgotten to give due notice. There were very few men in his district who could substantiate a claim under the Agricultural Holdings Act of 1883. As soon as they had to produce their vouchers for what was sold off the claim melted away.

Mr. A. Michelmore said there seemed to be some difficulty as to form. The principal Act stated that *notice* should be given two months before, and the Bill now under discussion said the *claim* should be made not less than three months after. To his mind there was a great difference between notice and claim. A tenant must know whether he was going to make a claim two months before he made it. The claim was actually made when the arbitrators met, at all events in his part of the country—Devonshire.

Another point that occurred to him was how, three months after a tenancy had expired, could the question of hedges be entertained? A tenant would naturally say that when he left the hedges were in good order.

Mr. A. W. Neate (Fellow) said he thought it was

desirable that a certain amount of notice should be given as to what the valuers were likely to have to consider.

They would then meet better prepared, and a good deal of time would be saved. Otherwise it would often be necessary to meet several times (twice at least) on the farm for the same valuation. Therefore he thought some notice should be given.

Mr. D. T. Thring (Fellow) said it appeared to him there must be two valuations, especially in Lady Day tenancies, if the three months were adhered to—one to look into the matter of cultivation, and one, at least three months after, to look into the matter of feeding stuffs, which would mean a great deal of expense to all parties.

Colonel G. W. Raikes said he thought there was a general consensus of opinion, both in that room and outside, that claim and counter-claim should be made at the same time. As to what that time should be there was a good deal of difference of opinion. His own view was that it should be at least 28 days before the expiration of the tenancy. That was the time which the Chamber of Agriculture advocated, and he supposed it was the wish of farmers generally.

A previous speaker had said that it was very desirable that the landlord should be able to make his claim a month before the expiration of the tenancy, which would give the outgoing tenant an opportunity of putting certain things right. That, in his part of the country, was a very common thing. It was true the outgoing tenant seldom did much in reduction of dilapidations, and the valuers were very reluctant to charge him

any adequate amount. There ought to be a more definite understanding as to what "dilapidations" meant.

For the present he confined himself to saying that the claims of both the landlord and the tenant should be put in 28 days before the expiration of the tenancy, with the same power to amend as that contained in the principal Act, which had worked well. So far as his experience went, he had never known an arbitrator or valuer object to such amendments. Certain little things might happen after sending in claim; for instance, a tenant might have claimed for a building destroyed by fire; he might have claimed for a dutch-barn that had its roof blown off; and there might be such a thing as wilful damage. There might also be unpleasantness and questions of trespass between the landlord and the tenant, or of damage done by rabbits.

He would suggest that some such clause as the following would meet the case:—

"All claims, whether by tenants for improvements or "breach of contract, or by landlords in respect of breach "of contract or waste (dilapidations), shall be delivered by "either party on the other 28 clear days before the "termination of the tenancy, subject to amendment only "in so far as such claims may be affected (increased "or decreased) by anything that may happen or be "done by either party during the last *month* of the "tenancy."

He also thought that a comprehensive schedule should be added to the Bill enumerating what a *tenant claiming compensation for improvements* would be liable to pay for by way of dilapidations; but if the tenant made no claim, neither did he think it desirable that the landlord's claim, if any, should be gone into, but

that they should be left to settle their differences without invoking the aid of the Act.

The CHAIRMAN said he thought the Meeting was pretty well agreed that the three months, at any rate, should be expunged, and a different period substituted.

Mr. F. AUSTEN said he did not know whether it was clear as to how the landlord had to claim.

The CHAIRMAN said he thought it was intended that the landlord should have the same power as the tenant, but Mr. Willis Bund thought this was not so clear, and he should certainly like to see the point made clearer.

CLAUSE 2, SUB-CLAUSE 4.

The CHAIRMAN did not think it necessary to make any remark upon this clause.

CLAUSE 2, SUB-CLAUSE 5.

Mr. WILLIS BUND desired to refer to the last few 'ines of Sub-clause 5, "the opinion of the court on "any question so stated shall be final, unless within the "time and in accordance with the conditions prescribed "by rules of the Supreme Court either party appeals to "the High Court, from whose decision no appeal shall lie." That was to say, that there was to be a code of rules drawn up under this Bill, and on any point, the opinion of the High Court was to be final. He should like to know what those rules were to be; for if they were to be like the ordinary county court rules which limited the right of appeal to a question of amount, he thought it would be very objectionable. Important cases sometimes

arose where the amount was very small, but it might be desirable to get a decision upon some particular point. Then, the case would come before two Judges of the High Court, but (he said it with all possible respect) some of Her Majesty's Judges did not know much about agriculture, and it was quite possible that they might be equally divided in opinion on such a case, and, if they differed, and there was to be no appeal, he did not see what was to become of the case. He thought that, instead of saying it should be final, it should be possible to go to the Court of Appeal with leave.

Mr. J. R. Eve said there was one point he should like to be clear on. At what period could either party go to the County Court to state a case? Only, as it seemed to him, when the case was finished and the award made, and not during arbitration.

The Chairman said that was a question of law.

He thought one speaker mentioned that there was no power of examining witnesses on oath, but Clause 6 said: "Any person who wilfully and corruptly gives "false evidence before an arbitrator or umpire in any "arbitration under this Act shall be guilty of perjury, "and may be dealt with, prosecuted, and punished ac- "cordingly." Therefore he thought it might be inferred that an arbitrator would be able to administer the oath, and that a person giving false evidence would be liable to be punished.

Mr. A. Buck, quoting Sub-clause 5: "If in any "arbitration under this Act the arbitrator states a case "for the opinion of the County Court on any question of

" law," said, would not that mean during the time of the arbitration ?

Mr. J. R. Eve said that was just what he wanted to know. He had asked about the examination of the witnesses. There was, he believed, no power to summon them by subpœna, but there was such a power under the former Act.

Clause 2, Sub-clause 7.

The Chairman said this referred to the Arbitration Act, 1889. The words were, " subject to any provision " contained in any agreement between landlord and " tenant, the Arbitration Act, 1889, shall not apply to " any arbitration to which this Act applies." He did not think this perfectly clear—at least it was not satisfactory to his own mind, but he did not know that it was a matter of much moment.

Clause 3

referred to land charges of the Board of Agriculture to be substituted for the County Court, which appeared desirable.

Clause 4

related to fixtures, and seemed fair.

Mr. J. W. Kemsley said he thought this clause needed some little modification. It said " shall apply to a " fixture or building purchased by a tenant." When a farm was taken by a willing buyer in good times many things were often put in as fixtures which were the property of the landlord. He thought this needed qualifica-

tion, and should only refer to fixtures *properly* purchased by the tenant.

The CHAIRMAN said it was assumed they would be properly purchased. There was no difference between purchasing a fixture and putting it up. That, he thought, was the point.

Mr. DANIEL WATNEY said he thought that it should be " with the knowledge and consent of the landlord."

Mr. JOHN WEALL (Fellow) said he did not know whether that was generally understood.

Mr. F. AUSTEN said that very often a greenhouse or glasshouse was put up.

The CHAIRMAN said a greenhouse was surely not a fixture under an agricultural agreement. He would proceed to

CLAUSE 5,

which was a proper clause, and

CLAUSE 6,

which referred to penal rents and liquidated damages. This, to his mind, was a very important clause, which he did not disagree with generally, but it would not fairly meet all cases, particularly where old pastures were broken up. He thought some special provision should be made for that. In some cases the injury to the farm was so great that it was almost impossible to estimate the damage done by such a breach of contract. He felt

strongly on that point. There were experienced valuers present who would, he thought, agree with him that it would be very difficult to assess the actual damage in such a case; but he should be glad to hear any opinions on the point.

Mr. J. W. KEMSLEY said he thought it ought to be made a criminal offence to break up old pastures.

The CHAIRMAN admitted it was indeed a very serious offence.

Mr. A. BUCK said a landlord might have a pasture field which, for various reasons, he valued very highly, and a tenant might come and plough it up, merely saying, "you will be paid for any damage I do." But there were some things for which no money payment was compensation. The landlord might, he thought, at least be allowed to retain some little hold over his property, and if he had a pasture field which he valued as such, he might be permitted to put some clause in his agreement which prevented a tenant from ploughing it up, even though he might pay for so doing. He recollected a case in Worcestershire where a piece of land was let and described in the schedule as "pasture "land." It was ploughed up; the landlord and tenant disagreed, and then tried to find something on which to base a lawsuit. The landlord found this piece of land which had been ploughed up. The case was heard before a special jury—a view jury. They went to look at the land, and all the evidence was in favour of the fact that not only had no damage been done, but that the land was much improved by being cultivated. It was what one might call "tumble-down" pasture.—

not proper pasture land—and the valuers on both sides were bound to admit that it was improved. But the judge, in summing up, told the jury that they could not help that—there was a penal clause and they must find for the plaintiff. In spite of this the sensible jury found for the defendant, and the court above confirmed the verdict. That was a sensible view of the particular case, but he did not think that view would have been taken if the tenant had ploughed pasture right in front of the landlord's house, for instance. He was as strongly against this clause as he was against that fixing the time for making the claim at three months.

Mr. Willis Bund remarked that the words were "damage actually suffered by him." He thought that hardly gave the landlord anything at all. It only gave him the compensation for damage actually sustained, and not for that done to the place. In the case of fruit trees, for instance, the damage actually sustained might be stated as so many young trees at 2*s.* 6*d.* apiece, but it was the damage done to the estate in future that had to be considered, not the actual damage done to the landlord.

Mr. A. Vernon said he thought all would agree that this was a most objectionable clause. Damage might be done by a tenant's action, which could not be repaired in many years, say 10 to 20 in the case of ploughing up old turf, perhaps 50 in the destruction of a well-established hedge or in the case of the felling of valuable ornamental timber perhaps not in a century.

Mr. D. C. Legard (Fellow) asked who would assess the damage. Who was to say what the damage was? Was the tenant to choose his own valuer?

The CHAIRMAN said the valuation would have to be made according to the procedure in the Act, as in ascertaining compensation.

Mr. J. A. EGGAR said he did not think it was at all fair that the claim should be limited to damage actually sustained.

He also wished to say a word with regard to permanent pastures which might be laid down by the tenant, and which landlords did not wish to have broken up. If notice were given by the landlord that on the expiration of the tenancy he wished to take the land as pastures, it should not be possible for the tenant to break them up. He had known of instances where the landlord and tenant had fallen out, and old pastures laid down by the tenant had been broken up, doing considerable damage to the farm. He thought such a thing ought to be put a stop to.

Mr. D. T. THRING said he could very cordially agree with the last speaker on that point, especially with reference to Cornwall and parts of Devonshire, where it was the custom to lay down lands for a series of years, and thoroughly manure them, and where injury might afterwards be done by their disturbance. If there could be an amendment of the clause to prevent that it would be a great benefit.

Mr. DANIEL WATNEY said in regard to the breaking up of pastures, he had always understood that breaking up grass land was waste. He would ask Mr. Willis Bund whether if this clause passed in its present form it would prevent the landlord bringing an action against the tenant for waste in breaking up old grass-land not laid down by the latter during his tenancy.

Mr. WILLIS BUND thought it would not.

Mr. WATNEY said it seemed to his lay mind that it would not, but still he thought some clause of that kind was necessary. One reason he had for thinking so was that he was umpire in a case under the Agricultural Holdings Act some years ago, where there was a penal rent in respect of potatoes. Some 10 or 20 acres were planted with potatoes without the consent of the landlord, and the landlord and tenant fell out. The tenant had leave to grow potatoes one year, but he did not get leave the next year or the following year. For three years he had no leave, and when it came to a fight at the end, the landlord insisted on having his "pound of flesh." He (the speaker) considered that the amount claimed was too high, and that, in the words of this Bill, the landlord ought to be paid "for the damage actually suffered" by reason of the breach in growing potatoes. He went to counsel, who advised that he must give the full amount. In the end he did *not* award the full amount, for he considered it unfair; but he thought there should be some limitation, as indicated by this clause to the damage that should be paid for.

Mr. G. D. E. WIGLEY remarked that neither of the two last speakers had said anything about compensating the tenant for not breaking up grass land. Surely where a sitting tenant had provided seeds to lay the land down to grass, if the landlord could claim compensation for breaking up on the one hand, the tenant should be compensated for improvement on the other.

The CHAIRMAN said he thought the previous speakers' remarks referred to old pasture.

Mr. EGGAR said he did not for a moment suggest that the outgoing tenant should not be paid. If the landlord thought there was value in the pasture and liked to take to it, and gave notice that it was not to be broken up, then whatever was the value it should be paid for.

The CHAIRMAN said that was the custom he believed on all large estates.

Mr. J. WEALL (Fellow) said he quite agreed with Mr Watney, except as to the question of old pastures. There should be a penal rent as to these, which did not come under the definition of waste. He was once umpire in a case where he had not seen his way to award the full amount, but there were penalities for selling off straw and so on.

Mr. F. J. SMITH said Clause 6 made void all penal rents with regard to cropping, and also the sale of hay, straw, &c. It appeared to him that Clause 1, Sub-clause 4, read in conjunction with Clause 6, not only gave freedom of cropping, but permitted the tenant to sell off hay, straw, and other crops in any year of tenancy, including the last year, conditionally on his returning the equivalent in manure for crops sold or removed during the last *two years* of the tenancy only. This did not preclude the sale of hay or straw of the last year's growth, and damages on that account under Clause 6 can only be recovered *to the extent of the manurial value* of the crops sold as set out in Clause 1, Sub-clause 4, provided the tenant made a claim within "three months" of the determination of the tenancy and gave the landlord an opportunity of putting in a counter-claim.

Clause 7, Sub-clause 1.

The Chairman said this read as follows: "It shall not "be lawful for a landlord to distrain for rent of a "holding which became due more than *one year* before "the making of the distress, notwithstanding that ac- "cording to the ordinary course of dealing between the "landlord and tenant the payment of the rent of that "holding has been allowed to be deferred." That, of course, very much altered the practice which obtained at the present time, and seemed to him to almost entirely cut away the the protection of the landlord. He feared that, under it, landlords and land agents would be obliged to stipulate that their rents should be paid quarterly and punctually, if possible, which he thought would be a very difficult condition for the tenants if enforced.

Mr. J. W. Kemsley thought that it should be pointed out that this clause was certainly not in the interest of the tenant, but rather of the tradesman, and if it were desired that the measure should help the tenant it had better be omitted.

Mr. H. Little said he fully endorsed that opinion. It would stop the usual four months' grace which the tenant had for paying his rent, and also any additional time which the landlord might give him to help him when there were bad markets or when he was not able to realise, so as to be able to pay at the usual time. In the case, for instance, of an ordinary barley farm with rent due 29th September and 25th March, generally paid in January and July. In September the tenant would not

be prepared, for he was harvesting his crops. Between that and January there was time to sell them, and the money was ready for the landlord. By July he had time to sell his lambs and wool and he was then ready. But this clause would do away with all this, would also promote forced sales in order to meet the rent punctually and so would do tenants a good deal of harm, and lessen their credit with the banks.

Mr. F. J. SMITH considered that any shortening of the customers' credit generally allowed for the payment of rent would be extremely detrimental to the best interests of the tenants.

The CHAIRMAN said instead of giving half a year's grace, landlords would want their rents paid quarterly and punctually if possible.

Colonel RAIKES said that was right "if they possibly "could." There was nothing so difficult, if tenants had gone on in one way, as to get them to adopt another.

Mr. DANIEL WATNEY thought the clause in the 1883 Act was found to work fairly to both landlord and tenant, and might very well stand.

CLAUSE 8.

The CHAIRMAN said this seemed to be a matter of course, and he did not think it demanded any discussion.

CLAUSE 9, SUB-CLAUSE 1.

This sub-clause read as follows: "References to "'manures' in the principal Act and this Act shall be

" construed as references to the improvements numbered " twenty-four, twenty-five, and twenty-six in the First " Schedule." That gave what had been recommended by a great number of valuers—compensation for consumption on the holding of feeding stuffs, produced or not produced on the holding. The Nos. 24, 25, and 26 referred to were: (24) "Application to land of purchased " artificial or other purchased manure"; (25) "Consump- " tion on the holding by cattle, sheep, or pigs, or by " horses other than those regularly employed on the " holding of corn, cake, or other feeding stuff not " produced on the holding"; (26) " Consumption on the " holding by cattle, sheep, or pigs, or by horses other " than those regularly employed on the holding, of corn " proved by a granary book or other adequate record to " have been produced and consumed on the holding."

He knew that there were many different opinions on this point, and of course he could not say that home-grown corn did not make an improvement, just as did the corn purchased; but it was a very difficult question to settle. He took it that the Bill provided that nothing should be allowed for corn given to horses regularly employed on the holding, and this was, he thought, a wise and very proper provision. But it seemed to him it should also be limited to horses regularly grazed on the farm, *i.e.* young horses or horses which grew up as ordinary stock on the farm. He would not insist on this, for he knew there was a very strong feeling among tenant farmers and some valuers, but it appeared to him necessary to be very careful, and that the clause required much consideration. If it were to take effect there ought certainly to be a granary book of the home-grown corn properly kept, and constantly ready for inspection.

Mr. A. Michelmore thought the clause opened a very wide door as now drawn. It practically safeguarded the outgoing tenant, and he thought there should be some safeguard on behalf of the landlord. It occurred to him that the outgoing tenant, during the twelve months before leaving, could not give a periodical notice of what he intended to consume. He also observed that certain feeding stuffs were excluded in that clause, such as rape-seed and malt. He thought if a man malted his barley and consumed it he should be allowed the residual value.

Mr. D. C. Legard desired to know if No. 26 need be retained at all. There was a great deal of consideration extended to the outgoing tenant, but no one seemed to consider the incomer. In theory this might be just to a limited extent, but it led to a certain amount of uncertainty, and in some cases it was extremely difficult to find out whether the claim made was a fair one or not. The outgoing tenant was already well compensated, and the tendency seemed to be to compensate him more and more. He thought the line might be drawn at this, and he would suggest that No. 26 of the Schedule be cut out altogether.

Mr. J. R. Eve said he agreed that a difficulty existed, but he thought it must be faced. It was hard that a farmer should be obliged to sell his corn at a low price and buy again at a higher price, for which he got no compensation. The point was a very difficult one, but he did not think it could be avoided, and therefore he did not agree that No. 26 should be cut out.

Mr. AUSTEN said he did not think it should go forth from that Meeting that they disagreed with this No. 26, for it was what had been asked for.

The CHAIRMAN asked the speaker what he proposed as to the horses?

Mr. AUSTEN replied that he thought the tenant should be entitled to claim compensation for corn supplied to his horses not employed on the holding.

Mr. H. HAYWARD agreed with the last speaker, and thought it was not desirable to call on the tenant to sell his corn cheap and provide cartage both ways; but that there should be some provision whereby he must notify when he was using home-grown corn.

The CHAIRMAN thought that a granary book provided for that.

Mr. HAYWARD said the outgoing tenant had, as a rule, ample protection, but the incoming tenant in many cases got doubtful value.

Colonel RAIKES said that in his own neighbourhood farmers sold their barley at 30*s.* to 35*s.*, and bought Russian at 18*s.* to 20*s.* for feeding purposes. They also sold oats and beans at far higher prices than they gave for foreign. The proposal to pay compensation for home-grown corn was, in his opinion, indefensible, more par-

ticularly if the claim for it might be delayed till after the tenancy had expired, when the farm servants were dispersed, and rebutting evidence would be impossible.

Mr. E. B. DUKE referring to item 26 of Schedule I. of the Bill, said that in his own district the matter there dealt with formed almost the strongest grievance among tenants, and for his part, he thought they might justly claim compensation for home-grown corn in the same way as for that purchased, and he felt sure they could be trusted to produce correct records of all produced and consumed.

Mr. A. W. NEATE said, if the clause stood, it would be necessary for the valuers to make some distinction between corn fed by fatting cattle and that used for horses in work on the farm.

It was usual to distinguish in a similar way as regards milch cows, and he thought the manurial value of corn fed by worked horses would be so small that this provision could be of but little value.

CLAUSE 10.

The CHAIRMAN said this referred to Scotland, so it would not be necessary to consider it now.

CLAUSE 11

referred to Ireland.

CLAUSE 12

specified in the Third Schedule the enactments which were repealed.

CLAUSE 13

simply said, "This Act shall come into operation on the "first day of January one thousand nine hundred and "one."

CLAUSE 14

gave the short title of the Act and mentioned that it might be "cited as the Agricultural Holdings Act 1900."

CLAUSE 14, SUB-CLAUSE 2,

also said, "The Agricultural Holdings (England) Act, "1883, the Tenants' Compensation Act, 1890, the "Market Gardeners' Compensation Act, 1890, and this "Act, may be cited together as the Agricultural Hold-"ings (England) Acts, 1883 to 1900."

As he had already said (and he thought it seemed to be the opinion of the Meeting) it would be much better if the Bill and the incorporated Acts could be brought together in one Act. It would make the whole matter as simple as possible, not only for landlords and land agents but for tenant-farmers also.

SCHEDULE I.

Mr. WILLIS BUND said Part II. of this schedule said "making of gardens (not exceeding one acre)." Did that mean that each garden should be not more than one acre, and that the tenant might make as many such

gardens as he liked, or that all the gardens made were not to exceed a total of one acre?

The CHAIRMAN said he should take it as being one acre for the total of all gardens so made.

Mr. WILLIS BUND was not sure that this was intended. It ought to be made clear that the tenant could not have as many gardens as he liked of three roods each, or he might make the whole farm into gardens.

Mr. BUCK said that in the case of one market garden he had a claim for £10,000 for thirty acres of ground, and he sold the whole property for £6,000.

The CHAIRMAN said he thought Nos. 25 and 26 in the schedule had been already dealt with.

SCHEDULE 2, PART I.

His own experience led him to think that the procedure should be on much the same lines as before. Generally speaking, an arbitrator or valuer was appointed by the landlord and another by the tenant, and if they failed to agree they went to an umpire.

Mr. A. MICHELMORE said that under the old Act provision was made for setting out the amounts. He thought it necessary that the award should state those particulars.

The CHAIRMAN said that had been debatable ground ever since the Act of 1875 was passed. He had heard

eminent men speak very much against giving details. His own impression was that it would be desirable to have a certain amount of detail, say, for example, payment for a stack of hay, or for ploughing, with a sort of general outline of the division of the valuation. But this had been very much spoken against. In his own experience he found he could, as a rule, get those items from the valuer; but he never saw them put into the award and valuation.

Mr. F. AUSTEN said, with regard to No. 5, he thought 28 days rather too short a time for a valuer in the busy season, as he was often booked forward for a month or so and would have to postpone some of his previous engagements unless application was made to the Board of Agriculture. He thought if it were two months it would be better.

The CHAIRMAN said that they had now gone through the Bill, and he felt, personally, much indebted to the Members present for the able manner in which they had dealt with the various clauses. He thought he might say that, generally, there was a consensus of opinion as to the Bill. As he said at the beginning of the discussion, the Bill might be considered as a very fair attempt on the part of the Government to deal with the question, and he hoped the result would be a clear practical measure, which would overcome the many difficulties which now had to be met.

He was very much obliged, and he felt sure that he might say that The Institution as a body was deeply

indebted to the Members who had given the Bill such careful consideration and had so ably expressed their views upon it.

The Meeting then adjourned.

Paper 252.
No. 406.

FOREST MANAGEMENT, WITH SUGGESTIONS FOR THE ECONOMIC TREATMENT OF WOODLANDS IN THE BRITISH ISLES.

By JOHN NISBET, D.ŒC., Colonial Fellow.

Read at the Ordinary General Meeting of The Surveyors' Institution, *on Monday, January 15th,* 1900.

Thomas Miller Rickman (President) in the Chair.

t various times in past history Britain has ex-
ced more or less acutely the want of timber for
constructive purposes. This was notably the
ing the great period of naval warfare about a
ago; but improvements in communication by
d water have since then enabled the British
obtain from foreign sources, and from our great
and dependencies, the vast quantities of timber
nually required. Those, however, who give
n to statistics concerning the existing market
er, the sources of supply, the annual increment
th, and the present excessive demands for the
of actual requirements, cannot fail to become
ed with the serious position into which this
has actually already drifted with regard to
ng her necessitous demands for timber in the
ar future.

requirements in timber of the more commercial

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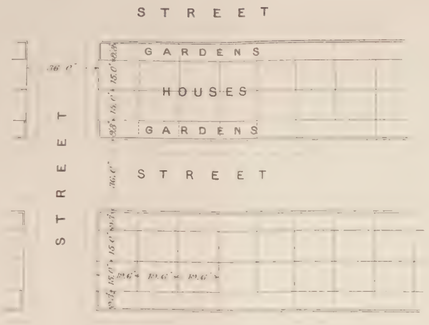

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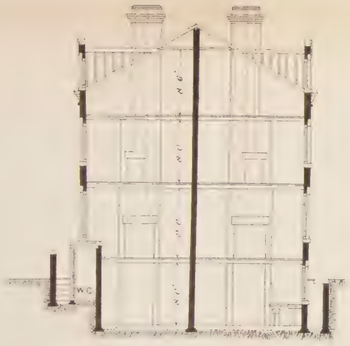

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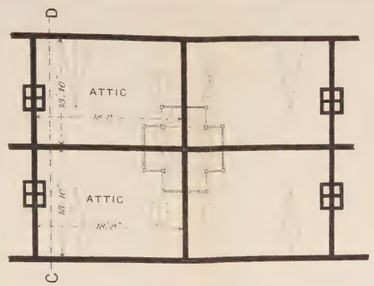

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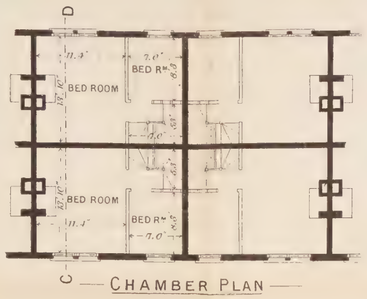

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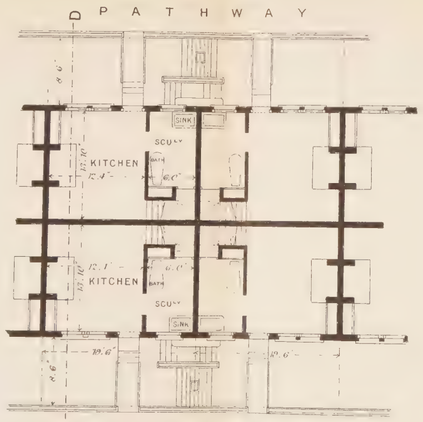

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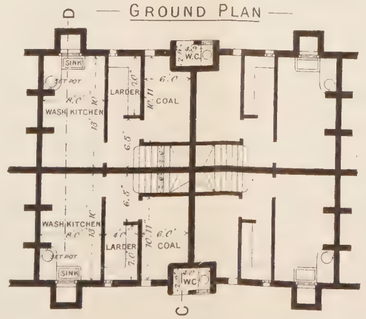

BASEMENT PLAN

SCALE OF FEET.

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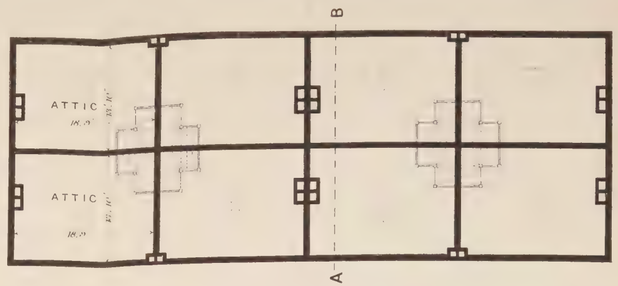

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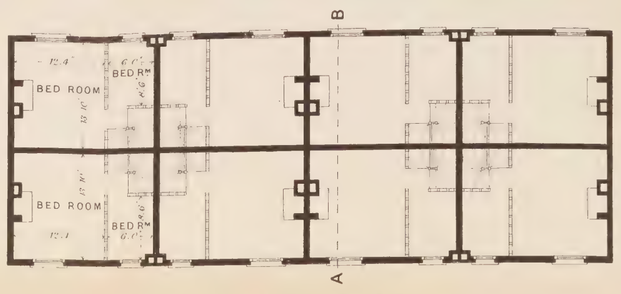

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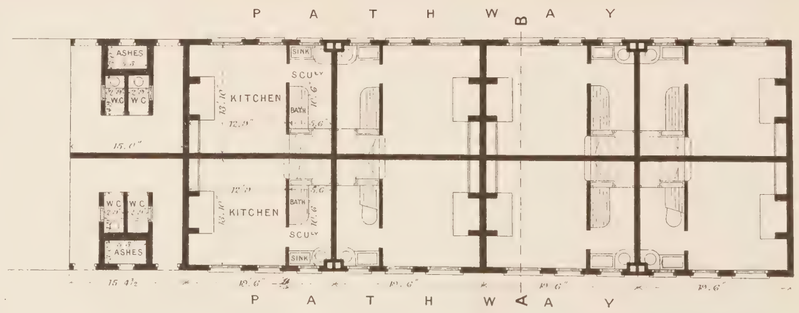

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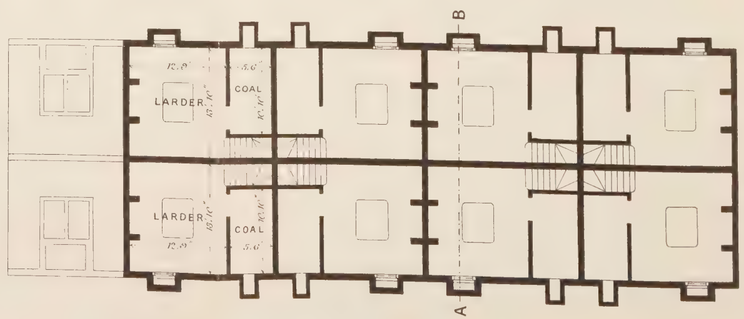
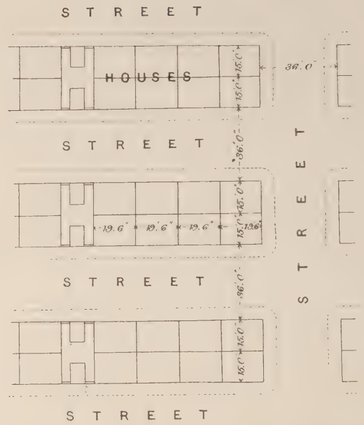
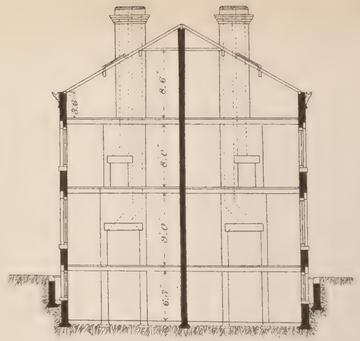


BASEMENT PLAN

PLAN Nº 2.



BLOCK PLAN TO Nº 2.



SECTION A.B.

ELEVATION

C.F.KELL & SON LITHO.8, FURNIVAL ST HOLBORN, E.C.

BURLEY
Cardigan Field
Botany Bay
Leeds Forge
Iron Works
Gas Works
Albion Works
Brick Works
Malvern House
Butts Grove
HER MAJESTY'S PRISON
NEW WORTLEY CEMETERY
Dragon Pit
Dragon Bridge
Manor Farm
Wortley Farnley Station
MIDLAND RAILWAY
L. & N.W.R. LEEDS DEWSBURY & MANCHESTER LINE
L. & N.W.R. WORTLEY & LEEDS LINE
G.N.R. LEEDS BRADFORD & HALIFAX Rly.
G.N.R. WEST YORKSHIRE RAILWAY
Whitehall Road
Geldard Road
Tramway
Wellington Br.
Sta.
Goods Sta.
Engine Shed
Mills
Victoria Br.
Holbeck
Low Fields
CATTLE MARKET
Sun. Sch.
Working Men's Hall
Mint
HOLBECK MOOR
Holbeck Union Workhouse
Brown Lane
Parsonage
Dis. & Parly. Boro.
Recreation Ground
High Field Tannery
Barracks
Drill Hall
Bap. Chap.
Infirmary
Denison Hall
R.C. Seminary
Vicarage
Chapel
School
Church
Club
Foundry
Pottery
Pottery Br.
Goods Station
Mission Ch.
Union Pub.
Clarence Terrace
Clarence Iron Works
Union Boy.
Dis. of Parly. Boro.
BURMANTOFTS
Burmantofts Works
Brick Works
Cross Green
Cross Green House
Milton House
St Hilda's Ch.
Vicarage
Knowsthorpe
Knowsthorpe House
Gravel Pit
Hunslet Linen Works
Progress Works
SITE OF G.N.R.Y. Co's GOODS STATION
Long Causeway
RICHMOND HILL RECREATION GROUND
Foltree Station
Mission Ch.
Scale of Chains
Chains 10 8 6 4 2 0 10 20 30 40 50 60 70 80 Chains
C.F.KELL & SON L.THO.B.FURNIVALS' HOLBORN,E.C.

PAPERS 256, 257.
NOS. 413, 414.

THE YORKSHIRE MEETING

OF

THE SURVEYORS' INSTITUTION.

AT

THE ORDINARY GENERAL MEETING,

Held at the Town Hall, Leeds, on Wednesday, the 25th April, 1900.

Before the commencement of the Conference, the LORD MAYOR of Leeds, addressing the Members in the Council Chamber, said it gave him extreme pleasure to be present to welcome them to the city, and on behalf of the Corporation to place rooms in the Town Hall at the disposal of The Institution for the transaction of the business of the Meeting, and in every way to promote the success of the visit.

The Corporation knew from their own local experience how complicated and intricate was the work with which surveyors often had to deal. While it was true that in many respects the surveyor's was an exact art when dealing with measurements and matters of that description, there were also many questions with which the surveyor was concerned which depended on expert opinion, founded on long practical experience, especially with reference to valuations. It was, he believed, quite impossible for a man to rise to eminence in the profession unless possessed of a strong will and a high character, so that he might be unbiassed in his opinion by fear or favour.

There were, he was glad to say, many local gentlemen, Members of The Institution, who were conspicuous examples of what a surveyor should be, and Leeds was proud to welcome the body to which they belonged.

There was probably no town or city in the kingdom of similar size which at present relied so much on the services of surveyors as Leeds, by reason of the vast enterprises in which the city was engaged, and which it was impossible to carry out except with the help of experts.

Further, he felt personally pleased and proud to have the opportunity of welcoming them, seeing that he belonged to a profession which frequently came into touch with surveyors, generally in a friendly way, but sometimes adversely, and he must admit that his feeling of respect for the profession as a whole, and for The Institution as representing it, had been increased by the occasional conflicts in which he had been engaged in connection with professional duties.

He was glad to find that the profession had, so to speak, welded its Members into one harmonious whole, forming an Institution representing all that was best amongst the surveyors of the United Kingdom.

Speaking as an accountant, he knew how valuable such an Institution might become to the profession when technical questions had to be dealt with, or placed in a united and authoritative form before the country.

The Lord Mayor having vacated the chair, it was then taken by the President of The Institution, and a vote of thanks to the Lord Mayor and Corporation having been moved, seconded, and carried unanimously, the Conference was declared open.

PAPER 256.
No. 413.

FIRST PAPER.

LEEDS.

BY JOHN HEPPER, FELLOW.

In the limited time at my disposal it is impossible to say all that might, with justice to the subject, be said of the history, growth, and commercial value and potentialities of the important City of Leeds.

Its history can be so fully gleaned from works of reference that I do not propose to deal with it except in the briefest way, especially as we have so few historical buildings remaining.

A record afforded by a tablet placed in the Council Chamber behind the Lord Mayor's Chair may be of interest, and therefore I give it.

This Tablet

was placed here by order of the City Council, as a record that HER MAJESTY QUEEN VICTORIA by Her Royal Charter, dated the 13th day of February, 1893, declared that the Borough of Leeds, in the County of York, shall be a City, and be called and styled

THE CITY OF LEEDS,

and that the Mayor, Aldermen, and Burgesses of the said Borough shall be one body politic and corporate by the name and style of

THE MAYOR, ALDERMEN, AND CITIZENS OF THE CITY OF LEEDS.

Historic Notes.

Year.

1080-1086.—Leeds a farming village, so described in Domesday Book.

1207.—In this year Maurice Paganel, Lord of the Manor,

granted a limited charter to the burgesses of Leeds.

1626.—First Charter of Incorporation granted to the burgesses by King Charles I., by which the town and parish of Leeds were first constituted a municipal borough, the council to consist of one alderman, nine principal burgesses, and twenty assistants.

1661.—Second Charter, granted by King Charles II., the council to consist of a mayor, twelve aldermen, and twenty-four assistants.

1662.—The council divided the borough into six wards, for the better relief of the poor.

1684.—The Charter of 1661 surrendered to His Majesty King Charles II.

1684.—Third Charter granted to the burgesses by King Charles II., the council to consist of a mayor, thirteen aldermen, and twenty-four assistants.

1689.—The third charter of 1684 superseded by their Majesties William and Mary, and the second charter of 1661 restored to the burgesses, and is still in force, except where it is inconsistent with or contrary to the provisions of the Municipal Corporations Acts.

1835.—William IV. The ancient Charters above mentioned, together with those granted to other municipalities throughout the kingdom, were brought within the operation of the "Municipal Corporations Act, 1835," the council to consist of the mayor, aldermen, and councillors. Under the authority of the Act the borough was divided into twelve wards for municipal election purposes, with sixteen aldermen and forty-eight councillors.

1881.—Borough divided into sixteen wards, with sixteen aldermen and forty-eight councillors.

1893.—Her Majesty Queen Victoria by Her Royal Charter, as above recorded, conferred upon the borough the title of "City," with the corporate name and style above mentioned.

Area.

Superficial area of the city, 21,572 acres. Circumference 31 miles.

Population.

1080-1086.	A large farming village.	
1615.	About	5,000
1644-1645.	About	6,500
1801.	First Census . .	53,162
1811.	Second „ .	62,534
1821.	Third „ .	83,796
1831.	Fourth „ .	123,393
1841.	Fifth „ .	152,054
1851.	Sixth „ .	172,270
1861.	Seventh „ .	207,165
1871.	Eighth „ .	259,212
1881.	Ninth „ .	309,119
1891.	Tenth „ .	367,505

The collection of engravings, drawings, maps, &c., which through the kindness of friends I am able to place before you, will illustrate some portions of Old Leeds; and your personal observation of the city during your visit will enable you to form some opinion, though an imperfect one, of the rapid growth, the enterprise, the wealth, and the commercial solidity of the metropolis of the West Riding.

I have prepared a map, founded on the Ordnance Survey, which will in some measure show the development of the city, and in an appendix which I propose, with the leave of your council, to issue with the report of this Paper, you will find illustrations of advancements of freehold values, which I hope will be of some service whenever you visit the city in a professional capacity.

The city is almost entirely freehold, and the instances of copyhold and leasehold and of freehold ground rents are so infrequent that we are sometimes in danger of overlooking them, and so unpopular are they that building societies and mortgagees are chary of lending money upon them and buyers discount them.

Statistics

are not usually attractive, but it is difficult to obtain a grasp of the progress and possibilities of a town without consulting them. I therefore make no apology for placing before you such facts as will assist you in forming approximately accurate conclusions.

The population of Leeds estimated to the middle of 1899 is 423,889, and its rate of increase is nearly 2 per cent., or about 8,000 per annum. Its proportion to area is about 19·65 per acre.

In 1851 the rateable value was £420,411, being an average per head of £2 8*s.* 9½*d.*

In 1899 the rateable value was £1,620,895, or nearly £3 16*s.* 6*d.* per head.

The nett debt of the city is £5,821,443, or £13 14*s.* 8d. per head.

The rates levied by the council and for poor rate and school board for the year ending March 25, 1900, are 7*s.* 2*d.* in the £.

It will be seen, therefore, that our debt is well

secured, accounting for the low rate of interest at which the city can borrow and the high estimation in which its stock is held in the market, and this will be still more clearly understood by a consideration of the undertakings which the council has under its control, viz.:

A splendid system of *Waterworks*, which is well worth the inspection of any surveyor interested in such matters, and which represents a capital outlay of £1,964,656, and a daily available supply of 28 million gallons, against a consumption (including compensation), of 24,936,000 gallons.

The Gas and Electric Lighting Works, equal to a capital expenditure of £1,639,190, and a source of considerable profit.

The Tramways, on which there has been an outlay of over half a million, and which are being extended in all directions to the city boundaries. At present, they are worked by electric, steam, and horse power, but the first is rapidly superseding the other two. They are well managed and a great boon, as well as profitable.

The Markets, viz.: Corn Exchange; the great General Market in Kirkgate, the principal frontages of which will shortly be rebuilt; the *Victoria Cattle Market*, which causes a yearly loss; the *Wholesale Meat Market*, which was opened last July; and a large and popular *Fish Market*.

Baths and Wash-houses total up to £61,000, and are likely to be increased in number.

Upon *Allotments* we have spent £7,216, but the result has been far from encouraging.

The Town Hall, the Municipal Buildings, Free Library, and Art Gallery form an imposing group, and will well repay an inspection; but, large as they are, they are so unequal to city requirements, that steps are

being taken to provide new Assize Courts and other accommodation, which will entail an outlay of probably half a million, especially if they are to be built on the south side of Victoria Square, in front of the Town Hall, which is generally (apart from considerations of cost) regarded as the most suitable position.

City Improvements.

The rapid growth of the city has rendered necessary street improvements, transformation of localities, and rebuilding to an extent previously unknown in its history.

Some of these, on an extensive scale, are being effected by private enterprise, and if you would like to see what great schemes are being carried out by two or three numerically small companies, I shall be glad to obtain you the necessary introductions, but I need not allude to them further here.

So far as street improvements are concerned, it is satisfactory to know that the plan of buying a greater depth than was actually required for dedication to the public user has had successful results; indeed in one case, (Vicar Lane) where the width has been increased from about 29 feet average to 75 feet, the surplus land resold has almost recouped the great cost of the improvement, and a similar result seems likely to accrue in other instances, without taking into account the enhanced rateable value which the improvements will occasion.

During this present month of April the City Council has decided upon a most important improvement, involving the removal of the Roman Catholic Cathedral and its schools, along with many other buildings between the end of Park Row and Great George Street, so as to widen Cookridge Street, get rid of a dangerous curve, and give greater freedom at a very busy junction.

The plan accompanying this Paper will show the principal street extensions and widenings in course of completion and contemplated.

The city improvements have in recent years been undertaken on a bold scale and with dispatch, a matter of great importance to public convenience, minimising cost, ensuring larger returns of capital, enabling a quicker settlement of localities, and the earlier creation of rateable value.

I have witnessed all the public improvements in Leeds for nearly fifty years, some executed in a tardy-niggardly spirit, others without a just appreciation of the immense potentialities of the city, but latterly with an enterprise and breadth of view which are conferring great benefit, by stimulating the owners of old property to improvements they would not have otherwise thought necessary, with the result that business premises everywhere are being enhanced in appearance and generally in value, and are becoming more consistent with the requirements of a wealthier and better educated population than that of former days.

Of all the methods I have seen, I most approve and heartily commend the vigorous and broad-minded method now obtaining in the city, which I hope will be continued on even grander lines for some years to come.

The establishment of the railway stations in Wellington Street between 50 and 60 years ago, and the subsequent opening of the Town Hall in 1858, gave the first great impulse to the modern development of the city: the pulling down of the hideous Coloured Cloth Hall, and the erection on the site thereof of the present Post Office and the formation of City Square, which will shortly be adorned by handsome equestrian and other

bronze figures, awakened fresh interest; and now æsthetic considerations are largely blending with the utilitarian in rendering our good old town not only something beyond a reproach, but a place worth living in.

Sanitation

has claimed a large amount of attention for many years, and immense sums have been expended in sewers and sewerage outfall,* in providing depôts, in opening out *culs de sac*, in building stone culverts for becks and streams, in removing insanitary buildings, letting air into close neighbourhoods, and in providing, at a cost of nearly £100,000, fever, small-pox, and other hospitals and a Sanatorium. The Corporation is now engaged in acquiring the property of an insanitary area of about 16¼ acres on the east side of the city, which will probably cost us over £200,000 more than can be realised by resale, unless more be devoted to business uses than is at present intended. It is occupied by a population of about 3,800, for 2,000 of which it is expected provision will have to be made on the cleared area, or some substitution therefor.

The Board of Trade regulations do not admit of back-to-back houses, which are so prevalent and popular here; blocks in flats on the London principle are contrary to Yorkshire habits and predilections; upon the land at such prices as the Corporation is likely to want, and with such conditions as it will probably impose, speculators will

* Since this Paper was written, the City Council has decided to purchase the Gateforth House Estate of 1,882 acres, near Selby, for £85,000, and to connect it with Leeds by a sewer which at the rate of £8 per yard will cost about £200,000.

The speech delivered by Alderman Harding when putting the scheme before the council is reported in the *Yorkshire Post*, April 5th, and is well worth perusing.

not be able profitably to build; philanthropists do not seem inclined to venture on the field; the Corporation is unwilling to engage in a great building scheme; investors object to public money competing with private capital the people displaced are mostly poor and unable to pay the increased rents which will be required, and groan at the hardship of being removed from their old haunts and contiguity to their spheres of work; and it is foreseen that the overcrowding of neighbouring districts will create other areas as insanitary as that from which they will be expelled.

I am inclined to think that the Corporation will be compelled to devise and carry out a scheme for rehousing the disturbed poor, and those members of this gathering who have experience in such matters could not engage in a discussion more profitable to us than one which would throw light on this difficult problem.

Those of you who wish to see some of the narrow streets, confined courts, cramped houses, and insufficient outbuildings which a somewhat remote past has handed down to us, cannot do better than explore right and left of Kirkgate, Marsh Lane, and York Street, and they will realise how necessary it is for the Corporation to take action in this matter.

The extension of the tramways with low fares will do much to relieve the pressure on the older parts of Leeds and better the condition of the working classes; but to them and to all of us the abatement of the smoke, which obscures the sun, chokes our lungs, spoils our buildings, soils our stocks, and distresses our visitors, is of urgent importance, and needs much more attention than it receives.

I hope our Corporation will see how necessary it is in framing future by-laws to insist that streets in which

back-to-back houses are to be built shall be more than 36 feet wide, or, better still, that they shall be 36 feet wide with a 6-foot area on each side, so that the houses shall be further apart and have more privacy than they possess when abutting upon the causeway.

Of course the effect of this will be, not so much to increase the rent as to reduce the price which the landowner will receive for his land; and it seems to me that the increment of value to the land caused by the increase of population should not go altogether to the landowner, but that some of it should be shared by the people in the form of increased open space, so that they may have more sun, more air, more room for movement, and so have better and more healthy conditions of life.

I will pass from this branch of my Paper with the observation that the death-rate of the city for 1899 was 19·1 per 1,000, which was less than that for the same period of Edinburgh, London, Birmingham, Sheffield, Manchester, Liverpool, Glasgow, and Dublin.

Philanthrophy, Education, and Recreation.

are admirably represented here.

We possess one of the most beautiful as well as one of the best appointed infirmaries in the kingdom, with a medical and surgical staff distinguished for skill and efficiency; an important public dispensary, nursing homes, a women's and children's hospital, a valuable blind and deaf and dumb institution, and a variety of other benevolent institutions supported by voluntary effort.

We have a fine Grammar School, with extensive playgrounds, a chapel, and a laboratory, adjoining Woodhouse Moor; voluntary middle-class and other schools;

a splendid series of board schools, at the head of which is a higher grade school on a large and liberal scale; an educational, literary, and art institute in Cookridge Street, known as the "Leeds Institute"; a Philosophical and literary Institution with a museum in Park Row; and as a crown to the whole, the Yorkshire College, with an affiliated medical school, the noble buildings of which are well worth a visit.

At Roundhay is a lovely park, of which 300 acres are reserved for public use; and eighteen other parks and recreation grounds, ranging from below 10 up to 78 acres in extent, are scattered over the borough, so that every township has at least one within or close to its borders. Kirkstall Abbey, with its pleasure grounds, which you will be afforded an opportunity of seeing, is among these.

I have dealt thus fully with municipal undertakings and public institutions, because the welfare and prosperity of a community depend so largely upon the means provided for its physical, intellectual, and social growth, and for the development of all those agencies and influences which tend to build up character and elevate the standard of commercial morality and social life.

I desire now to draw your attention to some of the

Characteristics of Leeds,

to which she owes so much of her success, apart from the practical, enterprising, persevering, and thrifty nature of her people.

Leeds is about equidistant from the English and Scottish capitals and from the eastern and western seaboards, and being served by all the leading railway companies, and having a continuous waterway between

the two seas, along the Leeds and Liverpool Canal from the west and the Aire and Calder navigation to the east, the city has become a great distributing centre, and has no superior in that respect.

The easy gradients of the roads and the convenient positions of the railway goods stations and canal depôts are of great importance to commercial traffic, as where towns such as Bradford and Halifax require two horses per load, we use only one.

Being on the edge of the great Yorkshire coalfield, our boilers, furnaces, and fires can be fed at the lowest cost.

Ironstone and stone are within our borders, and still larger supplies are within easy reach; and no town can be more advantageously supplied with the vast extent and variety of materials requisite for a large range of manufactures.

The immense deposits of clay suitable for bricks, fire-bricks, sanitary tubes and appliances, and pottery in various parts of the borough are a source of great wealth, not only because of the great home and foreign demand, but because we can supply ourselves at the lowest rates for our own building operations.

We are not subject to the violent storms and great floods of which we often read as occurring elsewhere, and are consequently saved a large amount of loss which others endure.

We have pleasant suburbs in which to reside, and are within easy reach of the delightful pleasure resorts of Ilkley, Bolton Abbey, and Harrogate, and of a wide range of fine country for driving and cycling. Breezy moors are but an hour's railway ride from us, and the Bramham Moor Fox Hounds meet within or close to our boundaries.

With all these commercial, residential, educational, and recreative advantages, it is not surprising that we find the variety of our businesses increasing, and our population growing at the rate of nearly 8,000 a year.

That which does so much to ensure

The Stability of Leeds

and its freedom from sudden collapses of trade and employment is the large number and variety of influential manufactures which it possesses, and which keep all families more or less employed.

So many of these trades require female labour, and there is so much employment for young people, that a family of an industrious character is never without employment for some or all of its members.

The earning power, therefore, of a family is larger and more equably exercised than in the case of towns with one class of manufacture, and the distribution of money is more even and the capacity for saving increased, and consequently we seldom have those periods of acute distress which are experienced elsewhere.

An enumeration of manufactures carried on in Leeds and district will further illustrate this, viz.:

Woollen and union cloths, blankets, carpets, felt druggets, and canvas.

Ready-made clothing on a gigantic scale; hats and caps; boots, shoes, and slippers in great and rapidly increasing quantity.

The tanning and manufacture of leather in every form, and from the lowest to the highest class, to such an extent that Leeds is looked upon as the head of the trade.

Forges for the making of boilers, boiler plates, rails,

and railway rolling stock; heavy forgings of many kinds, steel, &c.

Works of great extent for the manufacture of railway, traction, tramway, pit, mill, and other engines; the most powerful hydraulic machinery for railways, docks, and works of all kinds; engines, dynamos, and apparatus for electrical work of all descriptions; flour mill and oil mill machinery; brick-making machinery, steam cranes, steam ploughing, and other agricultural machinery.

Works in great number, and many of them extensive, for the making of engineering tools, small arms, torpedoes, flax, silk, woollen and other textile machinery, cycles, artistic and other light ironwork for domestic and decorative use; glass bottles, pottery, nails and screws, paper and paper hangings, &c.; large printing and lithographic works in considerable number.

Extensive works for the making of bricks, sanitary appliances, and beautiful forms such as the celebrated Burmantofts faience; chemical, dye, and drysaltery works; the alteration, extension, erection, and repair of buildings for such an enormous range of manufactures, the erection of more than 2,000 houses annually, as well as of shops, warehouses, &c., necessarily provide a large amount of employment.

Adding to all these the many employments in various associated handicrafts, collecting, distributing, shops, warehouses, and other industries which it is unnecessary to specify, it will be readily seen that work must be steadier and more universal in Leeds than in many other places, and it is not surprising that an artizan population

trained amongst such a variety of occupations should acquire an adaptiveness of skill and intelligence which fits it for, and is constantly attracting to the city, new trades and manufactures, and thus widening its commerial influence.

I have so often been asked by strangers the reason for the growth, the steadiness, and the prosperity of Leeds, and why we Leeds men have such confidence in our continued progress and in our freehold investments, as evidenced by the large number of years' purchase we give, that I have thought it might interest surveyors to place before them facts of which we have some reason to be proud, and which we necessarily take into account when we are dealing with the various interests in our charge.

APPENDIX I.

Illustrations of Advancing Values.

	Year.	Price per Square Yard.		
PARK ROW.		£	*s.*	*d.*
The northern half of the site of Prudential Buildings, 52 ft. frontage, 110 ft. depth - - -	1888	11	11	0
The southern half of the site cost about the same price - - - - - -				
The adjoining property on the south, 36 ft. frontage, 110 ft. depth - - - - -	1883	10	8	0
This property again sold after some internal alterations - - - - - -	1898	33	0	0
The property at the junction of Park Row and Bond Street, and Bond Street and Basinghall Street, with three frontages—together 240 ft. 6 in. -	1898	57	1	8
The site (with buildings) adjoining the above on the south, 46 ft. 6 in. frontage, 106 ft. depth, (price asked) - - - - - -	1862	6	10	0
Adjoining site again on the south of above, 35 ft. 6 in. frontage, 107 ft. depth - - - -	189–	25	0	0

	Year.	Price per Square Yard. £	s.	d.
PARK ROW—*continued.*				
Another site again on the south of above 55 ft. 6 in. frontage, 107 ft. depth - - - -	1893	30	0	0
The old Post Office, which was formerly the Court House, was sold, subject to certain restrictions, for £6,000 - - - - about	1861			
The Corporation bought this property back, free from above restrictions, for £25,000 - - in	1895			
and After devoting about 600 square yards to street improvements, the remaining portion was sold for £49,950 - - - - - -	1897	75	0	0
EAST PARADE.				
Nos. 10 and 11. 45 ft. frontage, 156 ft. depth -	1868 and 1872	6 average	2	7
Ditto Changed hands - - - in	1895	10	3	3
Ditto Ditto - again in	1897	15	5	0
The buildings have been cleared and new ones erected.				
The East Parade Chapel Estate, with frontages to three streets, together 410 ft., was sold for £17,500, but contract not carried out - -	a few years ago	13	16	8
Was sold for £31,000 - - - - in	1898	24	10	0
BOAR LANE.				
The site of the Saracen's Head with licence, at the junction of Boar Lane and Mill Hill - -	about 1867	19	0	0
The new Saracen's Head built on the same site -	1899	102	4	0
Two Ground Floor Shops with their basements, on the north side of Boar Lane, and extending westwards from Albion Street, site area 394½ square yards, are let at £6 6*s.* 0*d.* per square yard per annum (including external walls) - -				
COMMERCIAL STREET.				
Four Shops on the north side of this street between Lands Lane and Briggate, 98 ft. 6 in. frontage, 55 ft. mean depth- - - average price	1890	24	0	0
Three Shops at the corner of Trinity Street and Commercial Street, opposite the above, 73 ft. total frontages, average depth 20 ft. - -	1899	100	0	0

	Year.	Price per Square Yard.
		£ s. d.
COMMERCIAL STREET—*continued.*		
The property at the junction of Albion Street and Commercial Street, south-east corner, 92 ft. 3 in. total frontages - - - - -	1893	48 0 0
The property at the junction of Albion Street and Bond Street, north-west corner, immediately opposite the preceding, 84 ft. 6 in. total frontage, 39 ft. depth - - - - -	1871	25 5 0
The same property sold in - - - -	1896	58 1 0
BOND STREET.		
Shops and other premises on the north side of Bond Street, 54 ft. 7 in. frontage, mean depth 90 ft. Offered by auction and not £14 bid - -		
The same property altered sold - - in	1899	about 32 0 0
COOKRIDGE STREET.		
The block of Warehouses and Shops at the corner of Cookridge Street and Great George Street. Two frontages = 226 ft. - - - -	1873	7 7 0
The same property somewhat altered sold - in	1899	13 6 0

APPENDIX II.

By the kind help of Mr. Thos. Winn (Fellow), I am enabled to submit plans, sections, and elevations of two classes of back-to-back houses.

No. 1 lets at 6*s.* to 6*s.* 6*d.* per week, according to position, and No. 2 at 4*s.* 6*d.* to 5*s.* In both cases the landlords pay the rates and water rate out of the rent.

Much inquiry was made by visitors to the Leeds meeting for plans, and some members made special inspection of various classes of these cottages, and it was to satisfy an oft expressed desire that these plans of existing houses had been prepared for publication.

J. H.

Mr. W. J. Clutton (Fellow) said he felt sure that all present would most cordially join in a very hearty vote of thanks to Mr. Hepper for his excellent Paper. Leeds might certainly be regarded as the centre of the North of England, and he thought that the Paper was excep-

tionally interesting in setting forth its rise and progress, and the foundations on which were based that increasing prosperity which he hoped it would long continue to enjoy.

Mr. A. M. Fowler (Fellow) had great pleasure in seconding the vote of thanks to Mr. Hepper, with whom he had been acquainted for many years. One point in the Paper specially interested him—the great saving which had accrued to Leeds during the last 40 years from the lowering of the death rate, which as Mr. Hepper pointed out was at the present time 19·1 per 1,000. When he was resident in Leeds, engaged in active professional work, the death rate was 42 per 1,000. It was not difficult to imagine the immense saving, even in money, which had resulted from the great works which the Corporation had carried out. In the year 1832, and in the great cholera time of 1848-9, there was one street, viz. Cavelier Street, off East Street, where the whole of the population was practically exterminated by cholera. It was then that the Corporation began to look about to find how it was possible to put the laws of nature in force, or rather how to co-operate with them, in order to attain the desired end, which could not be done by Acts of Parliament unless the inhabitants of the town exerted themselves. With such a high death rate all the prosperity and wealth of the community simply went for nothing. The necessary improvements involved, it was true, a very high local rate—7*s.* 2*d.* in the pound he believed it was—but were eventually a great source of economy, as, for instance, in the scavenging of the town. The ultimate result of the improved water supply—the lowering of the death rate—could not, of course, be shown in the books of the Corporation, nor could the improvement of the general health effected by increased cleanliness of the streets and the disposal of the sewage

away from the centres of population. And again it was an undoubted fact that in London great loss to manufacturers resulted from the hardness of the water they had to use. It was said by the Royal Commission that the saving which would be effected by bringing soft water from the lake districts would, in one or two years at the outside, pay for the scheme.

THE PRESIDENT said the Paper was calculated to make the visiting members think so highly of Leeds that they would be unwilling to leave it. It seemed to be commercially, for health, and for its interesting historical associations, the place of all others where it was most desirable to live.

The vote of thanks to Mr. Hepper was then put to the meeting and carried unanimously.

Mr. HEPPER in reply said he was much obliged to the Members for the hearty manner in which they had received his Paper and passed the vote of thanks which had been proposed. The labour which he had bestowed upon the Paper had been to him a labour of love. He was very proud of his own city, which he knew so well. Experience had taught him the soundness of the elements of growth which he believed the city possessed, and therefore he never feared to advance boldly such opinions as he had expressed in the Paper, of which he believed there was not a word that could be contradicted.

On one little point he confessed he was disappointed, namely, that there had not been some discussion on the best method of dealing with insanitary areas. It was a question which was coming very much to the front, and the difficulties of meeting it were becoming greater and greater. Nothing that had been done

seemed to touch the most essential point of all, namely, the accommodation of the extremely poor.

The method of dealing with the difficulty which had been adopted in Leeds (and no doubt had been tried also elsewhere) was to establish an Industrial Dwellings Company, possessing considerable capital, which bought up old cottages which by neglect had become almost unfit for habitation. The company took over such houses and repaired them and introduced new sanitary accommodation, and opened them out so as to get more air, at the same time endeavouring as far as was possible to educate the people in habits of cleanliness. They were in this way doing a useful and valuable work in rendering help to those who most needed it.

He had expected to be attacked on the subject of the Leeds back-to-back houses. If any Members present were enemies to that system, he would ask them to consider the whole difficulty as it had to be faced in Leeds, and he would leave them to inspect their scullery houses as they were called, and to take into account the class of people who lived in them and the rent at which they were occupied. The great difficulty was to provide accommodation at about 4*s.* 6*d.* a week including rates. In Leeds they did so, and provided houses with a living room and scullery on the ground floor, and other necessary accommodation. Gas was laid on, and the rates paid by the landlord. The rent of such houses was 4*s.* 6*d.* to 5*s.* a week, according to situation. It was to accommodate the tenant who could only pay about 4*s.* 6*d.* a week and who wanted a house to himself that those back-to-back houses were provided. The death rate had gone down to 19·1 per 1,000 in spite of back-to-back houses, which were liked by the people.

Paper 257.
No. 414.

SECOND PAPER.

NUISANCES AND NOXIOUS TRADES.

By ARNOLD STATHAM, Associate
(Barrister-at-Law).

Limitations of the Subject.

The object of this Paper is to give a résumé of the law relating to those manufacturing industries and trade operations which either vitiate the atmosphere, or disturb the serenity, or pollute the water supply, or otherwise invade the rights of private individuals or the public to live or coexist under conditions where they shall be free from molestation or annoyance.

The subject, dealing as it necessarily does with offensive effluvia, sewage pollution, the putrid excrescences and chemical refuse of undertakings supposed to be essential to the progress of civilisation, will naturally strike you as a little unsavoury; but I trust that it will be possible to avoid the more unwholesome details, and bring into somewhat bold relief the effect of such enterprises upon the value of adjacent property, and to indicate the legal position in relation thereto of the parties concerned, whether as owners, lessees, or occupiers, of the works giving cause for annoyance, and of the adjoining premises respectively. It seems almost superfluous to add in the presence of an assembly of distinguished professional gentlemen who are constantly handling these and cognate questions, that the various doctrines of prescription, acquiescence, permissive user, and the

like equities have a considerable bearing upon the subject; in addition to which there are a number of Statutes, such as the Public Health Act and Rivers Pollution Prevention Act, besides a host of local and personal Acts, which render the general law extremely complicated, and put a mountain of difficulties in the way of any one who attempts to give a rapid, and at the same time an accurate, sketch of the subject in an essay as short as I intend this to be.

Finding it impossible therefore in the brief space of time at my disposal to crowd in anything like an exhaustive digest of the whole law upon noxious trades, I shall content myself with the attempt to give you those aspects of the law which are most likely to be met with by surveyors who are practising their profession in manufacturing localities, or are advising corporations who are following the tide of fashion that has overtaken municipal bodies, and themselves undertaking public works rather than leaving such to private enterprise.

Classification of Nuisances.

Nuisances may be roughly divided into two kinds, public and private; but they frequently overlap each other, and the distinction is by no means always clear.

Public Nuisance.

A public or a common nuisance is an offence against the public, being either the doing of a thing to the annoyance of all the king's subject, or the neglecting to do a thing which the common good requires.*

It is a public nuisance to carry on an offensive trade

* 1 Hawk., P. C. Ch., 32, s. 4.

to the annoyance of the public in the exercise of their rights, or of a whole neighbourhood.*

As illustrations of offensive trades I may mention steeping sheepskins in a populous neighbourhood and making acid of sulphur near a public highway.†

Injury to Health—Materiality of.

In a case where a manufacturer was proceeded against for erecting furnaces and ovens for burning coke, each of them vomiting sulphurous smoke injurious to the inhabitants of adjoining houses, in which even the furniture was spoiled, and flakes of fire often came from the flue of the furnace,

Heath J. directed an acquittal, as it did not appear that the grievance was injurious to the general health of the inhabitants.

Manure Factory.

In the case of a manure manufactory *injury to health* need not be proved.

If the effluvia amount to a nuisance in the sense of causing annoyance and discomfort, it is sufficient to bring the trade within the 114th Section of the Public Health Act, 1875, without proving that injury to health results from such effiuvia.‡

But a manufacturing of manure is not of itself a noxious and offensive trade, and where there was no evidence of its being noxious or offensive to the locality, no penalty was incurred.§ (Such a manufactory may be within the Alkali Works Regulation Act, 1881.)

* *Rex* v. *Pappineau*, 1 Str., 186.

† *Rex* v. *White*, 1 Bur., 333.

‡ *Malton Board of Health* v. *Malton Farmers' Manure Company*, 4 Ex. D., 302.

§ *Cardwell* v. *Newquay Local Board*, 39 J. P., 742.

Effluvia.

"Smell," said Vice-Chancellor Knight Bruce, "may "be sickening, though not in a medical sense. In- "gredients may be, I believe, mixed with air of such a "nature as to affect the palate disagreeably and offen- "sively, though not unwholesomely: and a man's body "may be in a state of chronic discomfort, still retaining "its health, and perhaps suffer more annoyance from "impure or fœtid air from being in a hale condition."*

He did not consider it essential to show that vegetable life or health, either universally or in particular instances, is noxiously affected by contact with vapour and floating substances [proceeding, for instance, from the burning of bricks one hundred yards off], if it is proved that the ordinary comfort of the occupiers is seriously diminished, whatever their rank or whatever their station in life may be.

In a case in Yorkshire where an extensive trade was carried on by the Malton Farmers' Manure and Trading Company in dissolving bones and coprolites with sulphuric acid, it was proved that whilst the hot product was being moved after manufacture or during the storage of material, effluvia were thrown off in large quantities within certain buildings, and a considerable portion of it escaped from the premises and had been from time to time, but not continuously, blown, according to the direction of the wind, into some parts of the town forming the district of the sanitary authority, where it caused the inhabitants to close their windows; but in the opinion of certain medical men the effluvia might have been such as to make sick people worse and cause nausea, but they did not think any permanent

* *Walter* v. *Selfe*, 20 L. J. Ch., 433.

injury to health would arise therefrom. Chief Baron Kelly and Mr. Justice Stephen held that though the effluvia might not be actually injurious to persons in sound health, yet if they caused such persons to become worse they were an offence within Section 114 of the Public Health Act, 1875.*

Private Nuisances.

To entitle a private person to maintain an action for a matter which amounts to a public nuisance, he must show that he has sustained a particular damage or injury other than and beyond the general injury to the public, and that such damage is direct and substantial.†

The proprietor of an iron and steel manufactory at Manchester commenced in May, 1868, the use of a steam-hammer, which was challenged by the trustees of a Roman Catholic chapel as a nuisance, disturbing the congregation in their devotions, and interfering with the business of the schools and the comfortable enjoyment of the rectory house. On their taking steps to restrain the nuisance, the defendant alleged that the nuisance was a public nuisance, and should have been proceeded against by indictment; but it was decided that the court had jurisdiction to give relief, and the court accordingly directed an injunction as well as an inquiry as to damages.‡

Nuisance pro bono publico.

The fact that a nuisance has been instituted *pro bono*

* *Malton Local Board* v. *Malton Farmers' Manure Company*, L. R., 4 Ex. D., 302.

† *Benjamin* v. *Storr*, 9 L. R., C. P., 400; 43 L. J., C. P., 162; 30 L. T., 362; 22 W. R., 631.

‡ *Boskell* v. *Whitworth*, 19 W. R., 804.

publico, for instance, to fulfil a Government contract is no defence to an action against the contractor by any private individual injured. H.M. Government required an enormous quantity of bricks to construct their fortification on Portsdown Hill, and their contractor constructed 28 kilns for burning bricks upon some brick earth convenient to the forts, each kiln capable of burning on an average 70,000 bricks at a time. When the wind was south-westerly, however, the noxious fumes were driven towards the mansion and ornamental plantations of a lady who lived 350 yards off the kilns, she complained that the contractor had come unnecessarily near her, and pointed out to the court that he had at his command other brick earth farther from her house. The Judge granted an injunction against any kilns being placed within a radius of 653 yards of her property. [This limit was fixed in reference to the particular situation of certain kilns, and must not of course be taken as a fixed limit or standard for future cases.]*

Substantial Damage.

Whenever special or particular damage is sustained by a private individual from a public nuisance, an action for damages is maintainable provided that the damage is direct and substantial.†

It is established by numerous decisions that smoke, unaccompanied with noise or noxious vapour, and also that noise alone, and again that offensive vapours alone, although not injurious to health, may severally constitute a nuisance to the owner of adjoining or neighbouring

* *Beardmore* v. *Tredwell*, 31 L. J. Ch., 892.

† *Addison on Torts*; *Soltav* v. *De Held*, 2 Sim, N.S., 133; 21 L. J. Ch., 153; *Benjamin* v. *Storr*, L. R., 9 C. P., 400.

property ; moreover, that if they do so, substantial damages may be recovered at law, and that the Chancery Division, if applied to, will restrain the continuance of the nuisance by injunction in all cases where substantial damages could be recovered at law.

There is no distinction between any of the cases, whether it be smoke, smell, noise, vapour, or water, or any other gas or fluid. The owner of one tenement cannot cause or permit to pass over, or flow into, his neighbour's tenenment any one or more of these things in such a way as materially to interfere with the ordinary comfort of the occupier of the neighbouring tenement, or so as to injure his property. It is true that, by lapse of time, if the owner of the adjoining tenement, which in case of light or water is usually called the *servient tenement*, has not resisted for a period of 20 years, then the owner of the *dominant tenement* has acquired the right of discharging the gases or fluid, or sending smoke or noise from his premises over those of his neighbour, but until that time has elapsed the owner of the adjoining or neighbouring tenement, whether he has or has not previously occupied it—in other words, *whether he comes to the nuisance or the nuisance comes to him*—retains his right to have the air that passes over his land pure and unpolluted, and the soil and produce of it uninjured by the passage of gases, by the deposit of deleterious substances, or by the flow of water. And the doctrine suggested in the well-known case of *Hole* v. *Barlow* * that the spot from whence the nuisance proceeded was a fit, proper, and convenient spot for carrying on the business which produced the nuisance, is no excuse for the act, and

* 4 C. B. (N. S.), 334.

cannot be made available as a defence, either at law or in equity.

The real question in all the cases is the question of fact, viz. whether the annoyance is such as materially to interfere with the ordinary comfort of human existence.* An injunction was accordingly granted to restrain the issuing of smoke and effluvia from a factory chimney, and the making of noise in the factory, although it was situated in a manufacturing town, it being proved that such smoke, effluvia, and noise were a material addition to previously existing nuisances.

Fastidious Standard of Comfort.

The occupier of a house is, in ordinary circumstances, entitled to an untainted and unpolluted stream of air for the necessary supply and reasonable use of himself and his family, meaning by untainted and unpolluted air, not necessarily air as fresh, free, and pure as at the time of building the house the atmosphere then was, but air not rendered to an important degree less compatible with the physical comfort of human existence—a phrase to be understood of course with reference to the climate and habits of England, not in any mere consideration of delicacy or fastidiousness or merely according to elegant or dainty modes and habits of living, but according to plain, sober, and simple modes among English people.†

An injunction has been granted against a restaurant keeper to prevent him allowing the escape of noxious odours to the injury of his neighbour's premises. ‡

* Per Lord Romilly, M.R., *Crump* v. *Lambert*, L. R., 3 Eq., 413.
† *See* per Knight-Bruce, V.-C., *Walter* v. *Selfe*, 20 L. J. Ch., 433.
‡ *Dore* v. *Secoroni*, 31 S. J., 727.

Needless to say an aggrieved neighbour may restrain vapours and smells from candle-making.*

So also poisonous fumes from arsenic works. †

Justices having convicted a man who set up business as a rag and bone merchant under Section 112 of the Public Health Act, 1875, holding that business was noxious and *ejusdem generis* with those under that section; it was held on appeal that conviction was right.‡

The magistrates of Banbury dismissed an information against a person who kept swine in such a manner as to produce extremely offensive effluvia and substantial annoyance to the household of his neighbour, on the ground that there was an entire absence of evidence that the nuisance was *injurious to health*; but the court above held that the meaning of nuisance in Section 47 of the Public Health Act, 1875, included in addition to matters injurious to health matters substantially offensive to the senses, and that important distinctions existed between provisions of Section 47, which did not deal, and other sections of the Act which do deal, with injury to health. They accordingly reversed the decision of the Justices. §

In the case of a fried fish shop, it was held that the certificate of the medical officer that it was a nuisance would be enough, though the certificate did not proceed to state that it was injurious to health.¶

Visible Injury.

According to Mr. Justice Mellor, a nuisance to

* *Bliss* v. *Hall*, 4. Bing. N. C., 183.

† *Reg.* v. *Garland*, 15 J. P., 260.

‡ *Passey* v. *Oxford Local Board*, 43 J. P., 622.

§ Grove, Lopes, and Bowen, J.J., *Banbury Urban Sanitary Authority* v. *Page*, 8 Q. B. D., 97.

¶ *Houldershaw* v. *Martin*, 49 J. P.

property arising from noxious vapours is not actionable unless it is such as "visibly" to diminish the value of the property and the comfort and enjoyment of it,* and by *visibly* Sir George Jessel understood visible to ordinary persons conversant with the subject matter. I do not think, said he, that this condition is satisfied by getting a scientific man to say, by the use of scientific appliances, microscopic or otherwise, he can state that there will be in future time an injury. There must be such an injury as would entitle a jury to give *substantial* as distinguished from *nominal* damages.†

Accordingly where no less than 254 coke ovens were erected only a quarter of a mile off certain plantations of timber, and a little over half a mile from a mansion house, and in support of the contention that the wood was injured by deleterious gases emitted by the coke ovens, scientific botanists swore that there were already signs of damage; the case was dismissed, on the ground that a quantity of black smoke issued from other collieries in the locality before the coke ovens were introduced, and the latter did not introduce a new state of things, and the damage was not visible to ordinary persons.

Contingent, Prospective, or Remote Damage.

The court has, in dealing with questions of this kind, no right to take into account contingent, prospective, or remote damage. If, said Lord Justice James,‡ in the course of nature the thing itself is so imperceptible, so slow, and so gradual as to require a great lapse of time before the results are made palpable to the ordinary

* *St. Helen's Smelting Company* v. *Tipping*, 11 H. L. C., 642.
† *Salvin* v. *North Brancepeth Coal Company*, L. R. 9 Ch., App., 706.
‡ *Ibid.* 709.

senses of mankind, the law disregards that kind of imperceptible operation. So if it were made out that every minute a millionth of a grain of poison were absorbed by a tree, or a millionth of a grain of dust deposited upon a tree, that would not afford a ground for interfering, although after a lapse of a million minutes the grains of poison or the grains of dust could be easily detected.

It would have been wrong, he observed, for the court, in the reign of Henry VI., to have interfered with the further use of sea coal in London because it had been predicted to their satisfaction that by the reign of Queen Victoria both white and red roses would have ceased to bloom in the Temple Gardens. If some picturesque haven opens its arms to invite the commerce of the world, it is not for the Court of Chancery to forbid the embrace, although the fruit of it should be the sounds and smells of a common seaport and shipbuilding town which would drive the Dryads and their masters from their ancient solitudes. Accordingly where a coal company had established themselves on a peninsula which extended far into the heart of the picturesque and ornamental grounds attached to a mansion house in Durham, the court said they could not interfere, even though the company had imported ironstone and erected smelting furnaces, forges, and mills, and filled the whole of the peninsula with a mining and manufacturing village, with beershops, pigstyes, and dog kennels, which utterly destroyed the beauty and amenity of the grounds of the complainant.

A man to whom Providence has given an estate under which there are veins of coal worth, perhaps, hundreds of thousands of pounds, must, said the learned Lord Justice, take the gift with the consequences and

concomitants of the mineral wealth in which he is a participant.

Condition of Neighbourhood at Date Property is acquired.

It is a matter of extreme importance to consider the state of the neighbourhood at the date when property is acquired, which is alleged by the purchaser to be injured by a noxious trade; *e.g.*, where a residential estate of great value was purchased in June, and in September of the same year very extensive copper smelting operations were commenced in the vicinity which not only injured the hedges, trees, shrubs, and fruit of the park and gardens, but also rendered the cattle unhealthy, the defence was that the whole neighbourhood had for some considerable time been more or less devoted to manufacturing purposes, and therefore that inasmuch as copper smelting was carried on in what the manufacturers considered a fit place it might be carried on with impunity, in spite of the great diminution of value of the surrounding residential estates. The Lord Chancellor in his judgment drew an important distinction, which has influenced many subsequent decisions. He said:

"In matters of this description it appears to me "that it is a very desirable thing to mark the difference "between an action brought for a nuisance upon the "ground that the alleged nuisance produces material "injury to the property, and an action brought for a "nuisance on the ground that the thing alleged to be a "nuisance is productive of sensible personal discomfort."

With regard to the latter, namely, the personal inconvenience and interference with one's enjoyment, one's quiet, one's personal freedom, anything that discomposes

or injuriously affects the senses or the nerves, whether that may or may not be denominated a nuisance, must, undoubtedly, depend greatly on the circumstance where the thing complained of actually occurs. If a man lives in a town, of necessity he should subject himself to the consequences of those operations of trade which may be carried on in his immediate locality, which are actually necessary for trade and commerce; also for the enjoyment of property, and for the benefits of the inhabitants of the town and of the public at large. If a man lives in a street, and a shop is opened next door to him which is carried on in a fair and reasonable way, he has no ground for complaint, because to himself individually there may arise much discomfort from the trade carried on in that shop; but when an occupation is carried on by one person in the neighbourhood of another, and the result of that trade or occupation or business is a material injury, then unquestionably arises a very different consideration, and I think that in a case of that description the submission which is required from persons living in society to that amount of discomfort which may be necessary for the legitimate and free exercise of the trade of their neighbours, would not apply to circumstances the immediate result of which is sensible injury to the value of the property.*

Trade noxious not in itself but in its mode.

A trade *not noxious* in itself may be conducted in such a mode as to be a nuisance. E.g. *brick burning.*†

Brick-burning.

When Surbiton was in its infancy as a suburb of London, and far more countrified than it is now, a brick-

* *St. Helen's Smelting Company* v. *Tipping*, 35 L. J., Q. B., 66.
† See *Bamford* v. *Turnley*, 31 L. J., Q. B., 286.

maker commenced burning bricks in a field there, to the intense annoyance of a private resident, who quickly enlisted the sympathy of the Vice-Chancellor,* and obtained his injunction; but the brickfield in question was only 100 yards off his house and in an urban locality; whereas in what one may call an out-and-out country district it would, of course, not be so easy to stop an enterprise of this kind unless a serious case could be made out. Erle, C.J., said that brick-making may be carried on so as to be no annoyance, and is a proper and ordinary use of land suitable for the purpose, and he held that brick-making was not necessarily such a "noxious "or offensive business, trade, or manufacture" as was contemplated by Section 64 of the 11 and 12 Vict., c. 63, which has been applied to the Wanstead District.†

Gradual Encroachments.

The Arabian maxim that "when the camel's foot is "once inside the tent the occupier must make way for "the camel" is not allowed free play when the camel is a nuisance. The law will not allow a manufacturer to get in as it were the thin edge of the wedge and then drive it home.

If a brick kiln is sufficiently near a dwelling house to affect it with smoke, it is a nuisance, and the owner's prescriptive right to another kiln, although nearer the house and almost in a line with the kiln complained of, cannot be urged as a reason for not granting an injunction.‡ Any contrary doctrine would admit of manufacturers starting a nuisance in a small and unobtrusive

* Knight Bruce, V. C., *Walter* v. *Selfe*, 20 L. J. Ch., 433.
† *Wanstead Local Board* v. *Hill*, 32 L. J., M. C., 135.
‡ *Bareham* v. *Hall*, 22 L. T., 116.

way, and step by step adding to it until it became intolerable.

Cement Works.

A farm which was very valuable for building purposes, and on which one villa had already been built, was situate about 1,100 yards from certain cement works, the owner himself being resident some 1,300 yards from it. On his part it was alleged that smoke and acids produced in the cement process damaged him. He was obviously a long way off, and required to make out a strong case to succeed; but a worthy rector who resided only a quarter of a mile from the cement works became a co-plaintiff in the action, and the farmer and rector uniting their forces managed to get a general injunction. But the Court of Appeal came to the conclusion that if the rectory was, the farm was not, *substantially* injured by the cement works, and dismissed with costs the case of the farmer, who probably came to the conclusion that an immediate order to pay costs in a witness action and an appeal is a grievance quite as burdensome to bear as a distant vapour of cement.*

Prior Defilement.

The law views very differently the importation *de novo* of an objectionable element into a purely residential neighbourhood, previously unpolluted, to the mere addition of a noxious manufacture to others in a locality the air of which has been long adulterated with the fumes of chimneys or the gases produced by factories, and which has in other words become a manufacturing centre.

* *Umfreville* v. *Johnson*, L. R., 10 Ch. App., 580.

All the facts, said Mr. Justice Mellor,* including time and locality, ought to be taken into consideration, and in counties where great works have been erected and carried on persons must not stand on their extreme rights and bring actions in respect of every matter of annoyance, for if so the business of the whole country would be seriously interfered with, and this view was endorsed by the House of Lords. It is always, said Lord Cranworth, a question of compound facts which must be looked to, to see whether or not the mode of carrying on a business does or does not occasion so serious an injury as to interfere with the comfort of life and enjoyment of property.

Tu Quoque Cases.

In law the proverbial rule that those who live in glass houses must not throw stones" is not of universal application.

Tu quoque is not a satisfactory answer.

It sometimes happens that the persons most injured by the offensive trade of a neighbouring manufacturer are themselves manufacturers of substances which are alleged to produce noxious fumes. A curious illustration of this occurred in Deptford. A varnish manufacturer carrying on a business under the arches of a railway applied for an injunction to restrain the production of noxious fumes and poisonous gases, especially sulphuretted hydrogen, which he alleged were evolved from the premises of his neighbour, who manufactured tar, sulphate of ammonia, and anthracene. The tar gentleman retorted by calling scientific evidence that certain ashphaltum which the varnish gentleman used in the manufacture

* *St. Helen's Smelting Company* v. *Tipping*, 11 H. L. C., 642

of Japan black in his works gave out sulphuretted hydrogen. A scientific witness actually made an experiment with it and produced the smell in court, and the judge immediately came to the conclusion that the fumes were a nuisance and proceeded from the plaintiff's own works. However the varnish gentleman, quite undaunted, went to the Court of Appeal, where he obtained leave to call further evidence to show that there were two kinds of asphaltum, one a mineral asphaltum, which did give out noxious vapours, and the other a vegetable asphaltum, which did not; and that he used the latter. The whole edifice which the scientific experts had built up by assuming that the asphaltum used was mineral asphaltum crumbled to pieces in a moment, as is not infrequently the case when the expert witness does not know his facts, and accordingly the tar gentleman had to succumb to the varnish gentleman, who succeeded in upsetting the decision and marched off triumphantly with his injunction.*

Pollution of Water-course.

One of the saddest consequences of expanding commerce in Lancashire and Yorkshire, and particularly the Black Country, has been the fouling of streams whose silvery flow used of old to brighten and enrich the landscape beauty of those respective counties.

Riparian proprietors, if there are any fortunately still surviving, who have hitherto enjoyed the use of water-courses in their natural state, are entitled to restrain the fouling of the water without proving to the court that the pollution is actually injurious to them, and it is important to note that the fact of the stream being already

* *Bigsby* v. *Dickinson*, 4 Ch. D., 24.

contaminated by the refuse or discharge of other factories is no defence to an action to restrain considerable additional fouling by a particular factory; nay, more, although the owners of particular manufactories on a river have acquired a prescriptive right to foul it, the fouling by them respectively must not be considerably enlarged to the prejudice of other people.

An interesting illustration of this occurred at Halifax, where Messrs. Crossley and Sons, carpet manufacturers, on the river Hebble, applied for an injunction to restrain the owners of large dye works higher up the river from fouling the water to an increased extent by dye works on a larger scale than had been formerly in existence, and which had contaminated the river.

To fortify their position, Messrs. Crossley were extremely astute. They employed a third party to negotiate for the purchase of a particular piece of land from the owners of the dye works, which would give them a distinct *locus* to complain of the fouling, and the solicitor to the third party took care to eliminate from the reservations in the draft terms of purchase, words which might reserve to the dye works any right to foul the stream for manufacturing purposes. By adopting this third party flank movement in lieu of a frontal attack, Messrs. Crossley succeeded in their object, and Lord Chelmsford held that, although the deal for the land was not so open as it ought to have been, nevertheless the mode of dealing could not have any effect upon the rights acquired by the purchaser, and accordingly Messrs. Crossley succeeded.*

There is small choice in rotten apples; when, therefore, a prescriptive right exists to foul a stream by dis-

* *Crossley* v. *Lightowler*, L. R., 2. Ch. App., 478.

charging a certain class of refuse into it, the Court will not restrain the discharge of other refuse, providing it does not increase to any substantial or tangible degree the amount of pollution. Some paper mills had discharged into the river Chess for more than 20 years certain alkali and lime used for converting rags into paper, and then the enterprising manager with the progress of science adopted the system of caustic soda upon the Spanish grass called esparto, which was washed, macerated, and boiled, and made into the material called "half stuff," and subsequently converted into paper. Lord Cairns decided that the right acquired by the paper millers was not a specific and defined right to pollute the stream by discharging the dirty water in which the rags had been washed, but was a general right to discharge into the river the refuse liquor and foul washing produced by the paper millers through the employment of materials from time to time coming into use, whether from rags, vegetable substances, or otherwise; provided always that there was no substantial or tangible addition to the total amount of pollution as against the servient tenement.*

Sewage Schemes.

Every Member of The Surveyors' Institution, which exists not only for the professional advantage of its Members and Fellows, but for the benefit and protection of great public interests, will doubtless watch with great jealousy the pollution of rivers or streams by sewage, and inasmuch as the conversion of town drainage into manure by sewage farms or otherwise has become almost a trade with certain local authorities, it is desirable to

* *Baxendale* v. *McMurray*, L. R., 2 Ch. App., 790

make special reference to the subject, and to give a few leading illustrations of the law in relation thereto.

The sewage of Tunbridge Wells had for many years been drained by Commissioners under their local Act of Parliament into a certain stream without perceptibly polluting it. The population of the town, however multiplied, and in course of time a certain ornamental lake in Mr. Goldsmid's Park at Somerhill, through which the stream passed, became foul and unwholesome with the sewage deposit. The Master of the Rolls* held that a prescriptive right of draining sewage into the stream to Mr. Goldsmid's injury could only be acquired by the commissioners by the continuance of a perceptible amount of injury for twenty years, and the injunction was accordingly confirmed against those very worthy gentlemen, the Commissioners, who, as not infrequently happens, thought that their statutory powers would cover a multitude of sins.†

Injury to the Value of Property apart from Injury to Occupiers.

An important observation was made in that case, which applies generally to our subject, namely, that regard must be had, not merely to the comfort or convenience of the occupier of an estate which may only be interfered with temporarily and in a partial degree, but regard must also be had to the effect of the nuisance upon the *value* of the estate, and upon the prospect of advantageously dealing with it in the future.

Magnitude of River—Materiality of.

Obviously it is of the highest importance that in

* *Lord Romilly.*

† *Goldsmid* v. *Tunbridge Wells Improvement Commissioners*, 35 L. J., Ch., 382.

ordinary cases where a river passes through a town, any attempt to pollute it by sewage should be actively interfered with by the strong arm of the law. A good deal turns, however, upon the magnitude of the river. In the well-known Colney Hatch case,* the asylum had about 2,500 inmates, and the sewage was drained into a little brook about 4 feet wide; but in a subsequent case of the River Stort, 40 feet wide by 4 feet deep, into which the town of Bishop Stortford drained and caused a nuisance to a certain extent, but not to the extent of injuring the inhabitants, the Vice-Chancellor † refused to interfere, reciting the Sheffield Gas case,‡ in which the Lords Justices, and Lord Cranworth in particular, laid down the rule that on an information by the Attorney-General the court will not interfere unless that public officer establishes just as clear and distinct a case as a private individual would have to establish to invoke the interference of the court.

Pollution of River.

A case tried in July of last year affecting the River Ribble § is particularly instructive. The owner of weaving sheds worked by steam power on the river bank had for many years prior to the passing of the Rivers Pollution Prevention Act, 1876 ‖ lawfully exercised the right of diverting water from the river into a private reservoir. The object of this was to enable certain offensive substances in the water to settle to the bottom, so that he could take the clear water from the

* L. R., 4 Ch. App., 146.

† Malins,V.-C., *A. G.* v. *Gee*, L. R., 10 Eq., 135.

‡ *A. G.* v. *Sheffield Gas Consumers Company*, 3 D. M. and G., 304.

§ *Joint Committee of the River Ribble* v. *Halliwell*, *same* v. *Shorro* [1899] 2 C. A., 385.

‖ 39 & 40 Vict., c. 75.

top and use it for condensing purposes. These offensive substances did not come from his works but from paper manufactories higher up the river, and after lying a few days at the bottom of the reservoir they became putrescent in the form of sludge, and when once a week the sluice-gates were opened and the water flowed out into the river this sludge was carried out, being the same refuse as was formerly in the river only in an aggravated form, the effluent containing 2·4 per cent. of solid matter. The Court of Appeal held that the solid matter was *in suspension in water* within the meaning of Section 20 of the Act which cuts down the meaning of "solid matter" in Section 2, which prohibits the putting into any stream of "any putrid solid matter," so that the owner of the wearing sheds was not hit by the section. Moreover, he was doubly protected, for Section 17 makes the Act inapplicable to the lawful exercise of any rights of impounding water.

Gas Company.

A gas company who corrupted the water of a river and rendered it unfit to drink were held guilty of a nuisance, but not for destroying fish, and thereby throwing fishermen out of employment.*

Statutory Powers.

When statutory powers are conferred under circumstances in which they may be exercised with a result not causing any nuisance, and new and unforeseen circumstances arise which render the exercise of them impracticable without causing one, the persons so exercising them are liable to an indictment.†

* *Rex* v. *Medley*, 6 Car &. Payne, 292.

† *Reg* v. *Bradford Navigation*, 34 L. J., Q. B., 191.

The company of proprietors of the Bradford Navigation (a canal company) were empowered by an Act of 11 George III. to take the water of certain brooks and use it for the purpose of their canal; the water in one of the brooks at the time the Act was passed (1770) was pure. Needless to state it, later on (1865), became impure, being polluted by vitriol works, grease works, dye works, and colliery drains. It was then penned back in the canal and became a nuisance. Chief Justice Cockburn held that the company were liable to be indicted for a nuisance, as there was nothing in the Act compelling them to take the water or authorise them to so deal with it as to create a nuisance.*

Liability of Directors.

Amongst the many woes of directors, which are constantly being heaped upon them by the disappointed public and judges irate at company manœuvres, may be enumerated their responsibility for nuisances of which they have no knowledge.

The directors of a gas company are answerable on an indictment for a nuisance for an act done by their superintendent and engineer, under a general authority to manage the works, though they are personally ignorant of the particular plan adopted, and though such plan is a departure from the original and understood method, which the directors had no reason to suppose had been discontinued.†

Liability for Acts of Agents.

The owner of works which are carried on for his profit by his agents is liable to be indicted for a public

* Distinguishing *The King* v. *Pease*, 4 B. & Ad., 30.

† *Rex* v. *Medley*, 6 C. & P., 292.

nuisance caused by acts of his workmen in carrying on the works, though done by them without his knowledge and contrary to his general orders.*

It makes a considerable difference whether the authority is general or specific. If one man employs another to do a particular act which is lawful, and he in doing it commits a public nuisance, the employer is not responsible.†

But it is otherwise if the act to be done necessarily involves the commission of a public nuisance.

Noise.

According to the common law of the land every one of Her Majesty's subjects, from a schoolboy to a Member of Parliament, has a right to make a noise: but the noise must be regulated according to the surrounding circumstances, and loud sounds or vibrations which might be a nuisance in one locality may not be so in another. Some manufacturing districts are practically surrendered to the most unholy noises, and the beating of the anvil or the vibration of machinery only swell the general din; but it is a question of *degree*, and the right to make a noise so as to annoy a neighbour cannot be supported by *user*, unless during the period in which the easement to make a disturbance is claimed to have been established such noise has amounted to an *actionable* nuisance.

There is an old proverb that "he who takes lodgings "in a hen house cannot complain of the fleas;" and by parity of reasoning a medical man who started a dispensary in premises adjoining huge engineering works could not complain of the thunder of steel plates, but it

* *Reg.* v. *Stephens*, 1 L. R., Q. B., 702; 35 L. J., M. C., 251.
† *Peachley* v. *Rowland*, 22 L. J., C. P., 81.

would be otherwise if the doctor of medicine set up in a district that was strictly residential.

A confectioner in a large way of business holding a lease under the Duke of Portland in the West End of London had in his kitchen two large marble mortars set in brick work built up to and against the party-wall which separated his kitchen from the consulting room of a well-known physician, who was also a lessee of the Duke. The mortars were worked by pestles attached to horizontal bearers fixed into the party-wall, and used for pounding sugar, hard substances, and meat (which, judging from the violence proved to have been used, was probably Australian mutton). Whatever it was, the doctor alleged that the noise prevented him from examining his patients by auscultation for diseases of the chest, and from pursuing the studies necessary to his profession. The confectioner proved that he and his father had used one of the pestles and mortars in the same place and to the same extent for upwards of 60 years and the second one for more than 26 years, and argued that if the doctor, who had recently built his consulting room, had built a separate wall and not used the wall of the bake-house, he would have experienced neither noise nor vibration.

Sir George Jessel (as great a judge as ever adorned the English bench) held that in spite of the 60 years user above mentioned, the Prescription Act (2 & 3 Will. IV., c. 71) had no application; as the waves of sound did not hurt anybody as long as the doctor's premises remained a garden, and that there was no actionable nuisance until the consulting room was built. From the nature of the case he could not presume a lost grant as against the Duke of Portland's lessee; and he accordingly granted an injunction, but as it seemed

somewhat hard upon the confectioner to compel him to alter his mode of business at the height of the London season, he gave him a reasonable time (until 1st August) to rearrange the position of his apparatus so as to deaden the sound.* The Court of Appeal refused to be influenced by the argument that the physician had practically courted the noise by building right up to the place where it had so long and still existed. It was urged in illustration that if the principle were carried out to its legal consequences, it would result in the most serious practical inconveniences, for a man might go say into the midst of the tanneries of Bermondsey, or to any locality devoted to a trade of a noisy or unsavoury character, and by building a private residence upon a vacant site, put a total stop to such trade; but the Court of Appeal were of opinion that the question whether any operation constituted a nuisance or not, was to be determined not merely by abstract consideration of the thing itself, but in reference to its circumstances; what would be a nuisance in Belgrave Square would not necessarily be so in Bermondsey, and where a locality is devoted to a particular manufacture carried on in an established manner not constituting a public nuisance, judges and juries would be justified in finding, and might be trusted to find, that the business carried on in such locality was not a private or actionable wrong.

Prescription.

Of course, in many cases, prescription would operate, as well as the presumption of a lost grant. When you find a man doing an act which is a manifest injury to another, such as fouling a rivulet by pouring the

* *Sturges* v. *Bridgman*, 11, Ch. D., 852.

chemical refuse of his factory into the bright trout stream of his neighbour, and his neighbour allows that to go on for a great number of years, the law deems it not unreasonable to presume that he did it under some right, and to infer that, as the neighbour did not complain of what amounted to very serious injury, the parties came to terms at some antecedent period for granting a right. However, where a noise has gone on for generations which has not injured a neighbour, or interfered with his comfort or enjoyment in any way, the Prescription Act cannot, said the late Master of the Rolls, deprive him of his right to ask the Court for relief when, in the course of events, it did seriously interfere with his comfort and enjoyment.

An acquiescence for fifty years by the neighbourhood will prevent an indictment for continuing a noxious trade.*

Injury Imperceptible at First.

If works are erected which are likely to become a nuisance (such, for instance, as copper-smelting works), and are subsequently carried on without any objection on the part of the owners of the adjacent lands, the fact that the neighbouring proprietors acquiesced so long as no perceptible injury was sustained, does not thereby preclude them, when the works do injure them, from objecting to an extension of the works, or from pursuing their legal remedy to recover damages.† "Why," said the Master of the Rolls,‡ "is consent (of the "adjoining owner) to the erection of works which were "not expected to injure, and did not injure, the

* *Rex* v. *Neville*, Peake, 93. See *Welch* v. *Hornby*, 7 East, 199.

† *Bankart* v. *Houghton*, 28 L. J., Ch., 473.

‡ Sir John Romilly.

" works at the time, to confer (upon the owner of " the works) the right to erect additional works which " will destroy the whole property, and entail upon the " other the incapacity of making any objection or obtain- " ing any remedy?"

The following is an instructive case affecting prescription. The possessor of a term of years in a certain house complained that he was disturbed in its enjoyment by a nuisance. The defendants pleaded that they were possessed of their workshops and manufactory (the nuisance complained of) for 10 years before the plaintiff became possessed of his term. The plaintiff replied that the term, of which he held the residue, was created four years before those who created the alleged nuisance were possessed of their workshops and manufactory.

Held, that the plea was bad. The defendants should have alleged a user for 20 years.*

Acquiesence for Six Years.

When a trifling interference by noise with an ancient right has been submitted to for six years, the court refused to grant any injunction, but left the plaintiffs to their rights at law.†

Noise caused by machinery having been acquiesced in for more than five years, the court refused to grant an injunction on the ground of increase evidenced only by the sense of hearing, it being proved on the other side that no new machinery or change in the manner of working had been introduced.

But the fact that noise and vibration from machinery have never been complained of for more than 20 years

* *Elliotson* v. *Feetham*, 2 Scott, 174 ; 2 Bing. N. C., 134 ; 1 Hodges, 259.

† *Gaunt* v. *Fynney*, 8 L. R., Ch., 8 ; 42 L. J., Ch., 122 ; 27 L. T., 569 ; 21 W. R., 129.

does not deprive a neighbour of his right to prevent any increased noise, even though such increase is slight.*

Cumulative Grievances.

There may, however, be an accumulation of grievances. A nuisance arising from noxious effluvia *and* noise, although shown to have existed to a certain extent for upwards of six years, was restrained.†

Increased Mischief.

A man carrying on a noxious business in a place where it has been long established is indictable for a nuisance, if the mischief is increased by the manner or extent of carrying it on; but if the business is increased, but with no additional mischief by reason of a better mode of carrying on the business, it is otherwise.‡

A Question of Degree.

Lord Selborne was of opinion that there may, of course, be such a thing as a legal nuisance from noise in a manufacturing or other populous town.§ But a nuisance of this kind is much more difficult to prove than when the injury complained of is the demonstrable effect of a visible or tangible cause, as when waters are fouled by sewage, or when the fumes of mineral acids pass from the chimneys of factories or other works over land or houses, producing deleterious physical changes which science can trace and explain. A nuisance by noise—supposing malice to be out of the question—is

* *Heather* v. *Pardon*, 37 L. T., 393.
† *Gullick* v. *Tremlett*, 20 W. R., 358.
‡ *Rex* v. *Watts*, M. & M., 281.
§ *Soltav* v. *De Held*, 2 Sim., N. S., 133; 21 L., 9 Ch., 153.

emphatically a question of degree. If my neighbour builds a party-wall next to my own, and I hear through the wall more than is agreeable to me of the sounds from his nursery or his music-room, it does not follow—even if I am nervously sensitive or in infirm health—that I can bring an action or obtain an injunction. Such things, to offend against the law, must be done in a manner which, beyond fair controversy, ought to be regarded as excessive and unreasonable.

His Lordship was far from saying that there may not be a case in which the owner of a house very near a mill in a manufacturing town may be entitled to protection against noises resulting from the introduction into the mill of new machinery, or of new modes and process of working. But in every case of this kind it ought to be clearly made out that the mill-owner has exceeded his rights. When there has been no introduction of new machinery and nothing new in the manner of working, when everything within the mill has gone on without change in the usual and accustomed course of the manufacturer's business, a suitor undertaking to prove that at and after a definite time the noise from the mill, admitted to have been previously lawful and harmless, became excessive and noxious, imposes upon himself—to say the least—an arduous task.*

The School-Nuisance.

If a schoolmaster keeps a school so near to the study of a lawyer as to disturb the quietude necessary to carry on his profession it is not actionable.†

* *Gaunt* v. *Fynney.*, L. R., 8 Ch. App., 8.
† *Wood's Inst.*, 528, ed. 1728.

Petty Cases.

An indictment against a tinman for making a noise in the exercise of his trade which incommoded the inhabitants of three houses in Clifford's Inn but no more, was held by Lord Ellenborough not to be sustainable.*

Artificial Work.

The occupier of a house is liable for allowing the continuance on his premises of any artificial work which causes a nuisance to his neighbour, even though it has been put there before he entered into occupation.

The business of keeping a livery stable or of keeping a large number of horses for any purpose may, under particular circumstances, amount to a nuisance.

Trustees of a residence in St. George's Terrace complained of the constant noise arising to their beneficiary from the stables next door owing to the stamping and kicking of the horses, the rattling of the ropes, chains, and blocks against the ring-bolts and mangers, the rolling and cleaning of carriages, and similar annoyances which were worse at night than in the early morning. Another grievance was that the drainage and moisture from the stables soaked through the wall. It was held not only that the dampness was a nuisance due to the artificial erection of made earth in the stables to a higher level than the adjoining premises, but also that the noise of the stables was a nuisance which must be stopped, and the following was declared to be the law. If a stable is built, not as stables usually are, at some distance from residences, but next to the wall of a neighbouring dwelling house in such a position that the noise

* *Rex* v. *Lloyd*, 4 Esp., 200.

of the stables would actually prevent the neighbours sleeping and otherwise annoy them, it is not a proper place to keep horses in, although the horses may be ordinarily quiet; and those who are aggrieved thereby have their legal remedy.*

A captain in the Life Guards took a house and stabling in Green Street, Park Lane, for his own private purposes, which had formerly been occupied by a livery stable keeper, who had so kept his horses as not to be an annoyance, on the ground floor which had been fitted up as stables for upwards of 50 years; however, the captain made some alterations in the stable so that the noise of the horses became an annoyance to the next door neighbour, and prevented him from letting his house as lodgings. Lord Selborne, L.C., held that in such a residential locality as Green Street the noise of horses from a stable preventing people from sleeping at night was not to be regarded like the noise of a pianoforte from a neighbour's house, or the noise of children in their nursery, which are noises that must be reasonably expected, and must to a considerable extent be put up with. Accordingly, although the stables had existed for half a century, yet, as the nuisance had not been continued for 20 years, the lodging-house keeper succeeded in restraining the captain from keeping his horses in such a way as to be a nuisance, and also obtained damages from him. The stables, however, of a large warehouse, or of stores, factories, or workshops, if situated in a district devoted strictly to business, would not be condemned as a nuisance, because some individuals elected to go and live in the upper part of adjoining shops, or because the manageress of a public-house which derived its trade

* *Broder* v. *Saillard*, 2 Ch. D., 692.

from the operations, chose to occupy a bedroom overlooking such stables, and complained that the noise caused her sleepless nights. The law relating to this class of nuisances may be figuratively stated in the time-honoured proposition that "At Rome, you must "live as the Romans."

Street Nuisances Blocking the Highway.

One of the most vexatious nuisances attaching to large warehouses is the congestion of traffic by carts and vans. There is, however, a remedy for this, and a strong one indeed it is.

A waggoner, occupying one side of a street in a city before his own warehouse in loading and unloading his waggons, for several hours at a time both day and night, and having one waggon at least usually standing before his premises, so that no carriage could pass on that side of the street, and sometimes even foot passengers were incommoded by cumbrous goods lying on the ground on the same side ready for loading, was held to be indictable for a public nuisance, though there was room for two carriages to pass on the opposite side of the street.*

Temporary Obstructions.

Sawing timber in the street, though for the sole object of getting it into the yard of the timber-merchant, has been held to be a nuisance, since there is no necessity for the performance of that operation in the public thoroughfare;† but it is not a nuisance for a warehouseman to unload his merchandise before his warehouse in the street,

* *Rex* v. *Russell*, 6 East, 247; 2 Smith, 424.
† *Rex* v. *Jones*, 3 Camp., 230.

for it is a matter of necessity, but he must not do so for an unreasonable time.*

Causing Crowd to collect.

Another class of nuisance is that caused by enterprising traders who endeavour to arrest the attention of the shopping public by exhibiting strange scenes in their front windows, so that a crowd collects and blocks the traffic.

If the owners of premises fronting on to a public thoroughfare exhibits effigies at his windows and thereby attracts a crowd to look at them, which causes the footway to be obstructed, so that the foot passengers cannot pass as they ought to do, this is an indictable nuisance, and it is not at all essential that the effigies should be libellous.†

In a case reported this year ‡ a Co-operative Supply Association was carrying on a large business at premises in a street which measured under 20 feet across the roadway, and kept six vans at a time every alternate hour loading and unloading goods opposite their premises, occupying thus half the width of the street, and seriously obstructing the passage of vehicles through it: the Court of Appeal held that this was an unreasonable user of the highway by a trader, which they therefore restrained as a nuisance.

It may be interesting to local authorities to bear in mind that the collection of a crowd of noisy and disorderly persons outside grounds in which an entertainment with music and fireworks is being given, though all disorderly

* 2 Rol. Abr., 137 ; 1 Hawk, P. C., c. 76, s. 145.

† *Rex* v. *Carlile*, 6 C. & P., 637.

‡ *A. G.* v. *Brighton &c. Co-operative Supply Association*, C. A. [1900], W. N., 12 ; [1900] 1 Ch., 276.

persons have been excluded from the grounds, and the proceedings within are conducted in an orderly manner constitutes a nuisance and may be restrained by injunction.*

This subject, though part and parcel of the law of nuisances affecting the utilisation of real estate, is nevertheless on the borderland of our theme, which more concerns noxious trades, and with this slight incidental allusion to it I will pass on to a more grave class of nuisance.

Warehousing Inflammable Matter.

An indictment charging a person with depositing in a warehouse belonging to him, near a public highway, large and excessive quantities of a dangerous, ignitible, and explosive fluid called wood naphtha, whereby the Queen's subjects passing along were in great danger of their lives and property, and were kept in great alarm and terror, *ad commune nocumentum*, was held to disclose an indictable offence.†

Where persons for their own convenience, and in order to dry an extremely dangerous and inflammable material, brought it in large quantities upon property in a densely populated neighbourhood, and after protest by the owner of adjoining valuable property, the Court, at his instance, granted an interim injunction to restrain them from permitting the material to remain upon the property and from bringing any more of it there, he undertaking forthwith to indict them for the nuisance, and to abide by any order as to damages.‡

* *Walker* v. *Brewster*, 5 L. R., Eq., 25; 37 L. J.. Ch., 33; 17 L. T., 135; 16 W. R., 59.

† *Reg* v. *Lister*, 26 L. J., M. C., 196.

‡ *Hepburn* v. *Lordan*, 34 L. J., Ch., 293.

Liability as between Owner and Occupier.

If a person lets land with that which is an actual nuisance upon it, he is liable for the continuance of the nuisance, because by letting the land with the nuisance upon it he authorises its continuance.* But if at the time of the letting there is no actual nuisance on the premises, although they are so built that they may actually become a nuisance, *e.g.* if a shop is let with a chimney so built that the smoke issuing therefrom will become injurious to the neighbours, the landlord is not liable, since the tenant may or may not use the chimney so as to become a nuisance.†

Lessor.

If the lessee of property, proceeding by license of the lessor, performs acts which amount to a nuisance, both of them are liable at law and equity.‡

No Responsibility on a Lessor who is Powerless to Remove a Nuisance.

When premises are let to a tenant the landlord cannot be made liable for a nuisance existing on them, unless it is shown that he could have removed it, but yet continued the nuisance.§

A let to B a field for the purpose of its being worked as a lime quarry. The ordinary way of getting the limestone was by means of blasting, and A authorised the quarrying the stone and the erection of lime kilns in the field. A nuisance was caused to the adjoining occupier by the blasting and by the smoke from the

* *Rosewell* v. *Prior*, 2 Salk., 460 ; 1 Ld. Raym , 713 ; *Rex* v. *Pedley* 1 A. & E., 822.

† *Rich* v. *Basterfield*, 4 C. B., 783.

‡ *White* v. *Jameson*, 18 L. R., Eq. 303.

§ *Pretty* v. *Bickmore*, 8 L. R., C. P., 401.

kilns, and he brought an action against both A and B. In this case A, the landlord, was held liable, although the nuisance was actually created by the act of his tenant, because the terms of the demise were authority from him to B to create the nuisance, which was therefore the necessary consequence of the mode of occupation contemplated in the letting.*

A person who lets premises with a nuisance upon them, and subsequently receives rent, is liable for the continuance of the nuisance.†

But a landlord is not liable in respect of a new nuisance created by his tenant during the term.

An owner of premises, including a stack of chimneys which were ruinous and impended over A's premises in a dangerous manner, demised the first-mentioned premises, knowing the real state of the case; the condition of the chimneys continued to be so dangerous until they actually fell and damaged A's premises, without any default of the tenant, but owing to the effect of gravitation.

Held, that the owner was liable to A for the injury.‡

Restrictive Covenant.

Where there was a restrictive covenant in a lease prohibiting an offensive, noisy, or noisome trade upon the premises, it was decided that the starting a butcher's business, though involving the slaughtering of beasts on the premises, was not necessarily within the covenant.§

* *James* v. *Harris*, 45 L. J., Q. B., 545; 35 L. T., 240.

† *Rex* v. *Pedley*, 3 N. & M., 627; 1 A. & E., 822.

‡ *Todd* v. *Flight*. 9 C. B., N. S., 377; 30 L. J., C. P., 21; 7 Jur., N. S., 291.

§ *Cleaver* v. *Bacon*, 4 T. L. R., 27; *Rapley* v. *Smart*, 10 T. L. R., 174.

Small-pox Hospital.

A small-pox hospital is not a noxious or offensive business within Section 112 of the Public Health Act, 1875.

Responsibility of Occupier.

Responsibility for a nuisance generally falls primarily upon the occupier of the premises complained of. By an order of justices under the Public Health Act, 1875, Sections 94, 96, it was found that a nuisance existed on certain land, viz. a foul ditch caused by refuse water and offensive liquid from an adjoining brewery, and that this nuisance was caused by the act or default of the defendant as owner and occupier of the brewery, and it was ordered that within three months he should abate the nuisance, and for that purpose should execute such works and do all such things as might be necessary so that the same should no longer be a nuisance or injurious to health. Upon a rule for certiorari, on the ground that the defendant was not the occupier of the premises on which the nuisance was proved to exist, and that he had no power or authority to enter on the premises for any purpose whatever, it was held that the order must be quashed.*

The proper person as a rule to proceed against for a nuisance is the occupier.

In an action for a nuisance, occasioned by drains on the premises belonging to the defendant, and adjoining the premises of the plaintiff, the claim alleged that the defendant was the owner and proprietor of the drains, and that he ought to have kept them cleansed, and have

* *Reg.* v. *Trimble*, 36 L. T., 508.

prevented the accumulation of filth from running into the dwelling house of the plaintiff, but neglected to do so. It was decided that the claim was bad, as it did not show that the defendant was the occupier of the drains, and the nuisance was not shown to be of a permanent or a continuing character.*

Every occupier of land is under a twofold duty to his neighbours.

He must not do any act which will cause an encroachment on his neighbours' land, but this limitation on his own actions is not the limit of the restrictions imposed upon him.

He must take care that no substance or thing upon his land shall so encroach on the adjoining land as to cause an injury to it.

Where a privy on the land of a Mr. Goldwin adjoined the cellar of a neighbour, and the soil of the privy burst through the wall into the cellar, the court not only held it to be a nuisance, which was obvious enough in common sense, but they held it to be actionable in point of law, and that Goldwin was bound of common right to repair the cellar wall so as to prevent the soil from doing the injury complained of.†

Ephemeral Damage to Sub-tenants.

The owner or lessee of houses let or sub-let to weekly tenants cannot maintain an action to restrain a temporary nuisance, such as the noise of machinery in adjacent premises, but it appears that such a suit could be maintained by a weekly tenant if the nuisance were of such a nature as to be injurious to his health or comfort. The

* *Russell* v. *Shenton*, 2 G. & D., 573 ; 3 Q. B., 449 ; 6 Jur., 1059.
† *Tenant* v. *Goldwin*, 2 Lord Raym., 1889 ; 1 Salk, 360.

lease of certain premises contained a covenant by the lessee to keep all future buildings and erections in repair, and also not to erect any steam-engine on the premises, or commit or do anything which might be a nuisance or annoyance to the tenant or occupier of any messuage or premises near to the premises thereby demised.

It was alleged that the assignee of the lease of the last-mentioned premises (by an assignment subsequent to the lease of adjoining houses held by the party who complained) had lately erected steam-engines and stone saw-mills and other machinery thereon, and that the noise, steam, and smoke arising from the working of the machinery were a nuisance, and caused great damage to the under-tenants, and that the nuisance arising from the works had been so great that several tenants had left, and the value thereof had been seriously depreciated.

It appeared in evidence that at the time when the action was commenced the houses were let to weekly tenants, and were both still so let and fully occupied. The decision of the court was that the landlord in such a case could not bring an action.* The injury was treated as a temporary nuisance, because the saws, though continuously working, might be stopped and the steam engine might cease working at any moment. It was regarded, therefore, as only an injury to the occupier, and the landlord could not bring an action, because before his estate came into possession the nuisance might have ceased, or the person committing it might choose to make it cease the moment the estate came into possession.†

* *Simpson* v. *Savage*, 1 C. B. (N. S.), 347.
† *Jones* v. *Chappell*, L. R., 20 Eq., 539.

Relief—in what Cases.

The court will restrain by injunction a person from doing that which will be a permanent nuisance to his neighbour.*

The remedy of a private individual is for his own damage, though the nuisance is a public one, and an injunction is only granted if it occasions a private injury, and at the instance of that individual.†

However, a nuisance against which a court of equity will grant an injunction must not be a mere sentimental grievance, but a material injury to property, or to the comfort of the existence of those who dwell in the neighbourhood.‡

Occurrences of nuisance, if temporary and occasional only, are not grounds for the interference of the Court of Chancery by injunction except in extreme cases.§

Therefore, when the Great Northern Railway Company carried down to and deposited on a siding to their line, manure which was occasionally not proper manure, and they occasionally allowed it to remain there longer than it ought to have remained, it was decided in a suit by a neighbouring landowner for an injunction to restrain the nuisance, and for damages, that the court could not interfere by way of injunction.

Although the Court of Chancery will sometimes refuse an injunction to restrain a nuisance—as, for instance, where the damage is infinitesimally small, and

* *A. G.* v. *Johnson*. 2 Wils., C. C., 87. *Box* v. *Allen*, 1 Dick, 49 ; *A. G.* v. *Forbes*, 2 Mylne & Craig, 123.

† *Spencer* v. *London and Birmingham Railway*, 8 Sim., 193 ; *Sampson* v. *Smith*, 8 Sim., 272.

‡ *Luscombe* v. *Steer*, 17 L. T., 229 ; 15 W. R., 1191.

§ *Swaine* v. *Great Northern Railway Company*, 4 De G., J. & S., 211.

the continuance of the nuisance of short duration—yet where the nuisance causes substantial and permanent damage to an individual, the court will not refuse an injunction even though the act causing the nuisance may in its results be beneficial to the public.*

Payment into Court.

Payment into court is now somewhat popular as a mode of meeting a claim for damages, but is was decided a long time ago that in an action for a nuisance, the plea of payment into court with a denial of liability ought not to be allowed, even if in other actions the case were otherwise.†

I will not, however, embark upon a technical consideration of the modern practice as to payment into court.

Proceedings in Respect of Nuisances. Removal and Abatement.

It is a dangerous thing as a rule to take the law into your own hands [indeed it is sufficiently dangerous to put yourself into the hands of those supposed to know the law], but if a man, on his own soil, does anything which is a nuisance to another, as by stopping a rivulet, and so diminishing the water used by him for his cattle, the party injured may enter on the soil of the other and abate the nuisance, and justify the trespass; and this right of abatement is not confined merely to nuisances to a house, to a mill, or to land.‡

* *Broadbent* v. *Imperial Gas Company*, 26 L. J., Ch., 276; 3 Jur. (N. S.), 221.

† *Spurr* v. *Hall*, 2 Q. B. D., 615.

‡ *Raikes* v. *Townsend*, 2 Smith, 9.

Taking the Law into one's own Hands.

It is the duty of a person who enters upon the land of another to abate a nuisance, to do it in the way least injurious to the owner of the land entered, for although an owner or occupier, in abating a nuisance to his property, may justify an interference with the property of the wrongdoer, yet he can only do so to the extent to which it is necessary to abate the nuisance.*

Notice before Removal.

But where such nuisance is created by another, and the owner succeeds to the *locus in quo*, he is entitled to notice before an injured party can enter and remove it.

Clear Case necessary.

No injunction will be granted unless the act done or contemplated will clearly be a nuisance.

Where parties were erecting works for the manufacture of gas by a new and secret process, which they said would cause no annoyance to their neighbours, an injunction was refused.†

Scientific Evidence.

A party seeking to interfere on the ground of nuisance with a work carried on in a normal manner must, as has been frequently stated, in order to sustain his action, show that he has incurred actual and substantial or visible damage. The *primary* evidence of such damage should be that of *ordinary* witnesses. Scientific evidence should be resorted to, not to establish

* *Roberts* v. *Rose*, 4 H. & C., 103 ; 35 L. J., Ex., 62 ; 12 Jur. (N. S.), 78 ; 13 L. T., 471 ; 12 W. R., 131—Ex. Ch.

† *Harries* v. *Taylor*, 2 Phil., 209.

the fact of the damage, but only to explain the cause of it.*

The court will not in such cases send an expert to report, where such course would in fact be giving a new trial on new evidence, and delegating the judgment of the court to that of the expert, nor will it direct an issue when the state of things may have been materially altered from lapse of time since the institution of the suit.

Issues improper for a Jury.

It is not right to put to a jury where a case of nuisance has been made out, whether the place is a proper and convenient one for the carrying on a work of that nature, or whether the manufacture thereon was a reasonable use by the owner of his own property.†

Action by Two. Failure of One to establish Right.

Proceedings were taken by two several landowners to restrain an anticipated nuisance from an intended noxious trade. The properties of the two were situate on diametrically opposite sides of the intended works, and the residence of one was close by, that of the other at a considerable distance from the works. The manufacture was commenced before the evidence was closed, and the result of the evidence was to prove the existence of a nuisance affecting one, whilst the case of the other failed; it was held that the failure of the case of the

* *Salvin* v. *North Brancepeth Coal Company*, 9 L. R., Ch., 705.

† *Bamford* v. *Turnley*, 31 L. J., Q. B., 286, approved per Cockburn, C.J; *St. Helen's* v. *Tipping*, 35 L. J., Q. B., at p. 70.

one did not affect the right of the other to relief upon their joint proceeding.*

Procedure and Evidence.

As it never does to plunge into litigation without well weighing the evidence beforehand, a few observations as to evidence in nuisance cases may not be altogether thrown away.

In a suit for an injunction to restrain a nuisance caused by a chemical manufacture, counsel applied at the close of his speech for liberty to adduce evidence to explain (as his witnesses had had no opportunity of doing) certain evidence of his opponents' witnesses as to noxious vapours arising from a material (asphalt) stated to be used in the manufacture of varnish made by his client, and to show that the word asphalt had a double meaning. The court was of opinion that the evidence should be admitted.†

It is important to bear in mind that in an action to restrain carrying on works as a nuisance, the reasonableness of the mode of working is not proper to be put in issue.‡

On the trial of an issue, whether (during a certain period) there arose from the works of the defendants noisome, offensive, noxious, or unwholesome smoke, and other vapours, to the nuisance of the plaintiff, whereby the produce of his garden was deteriorated, evidence was adduced for the plaintiff to show that the smoke and other vapours from defendants' works had injured the

* *Umfreville* v. *Johnson*, 10 L. R., Ch., 580 ; 44 L. J., Ch., 752 ; 23 W. R., 844.

† *Bigsby* v. *Dickinson*, 4. Ch. D., 24.

‡ *West* v. *Whyte*, 46 L. J., Ch., 333.

produce of other grounds in the neighbourhood; and also for the defendants to show that their works did not injure the produce of any other ground; and one of the defendants' witnesses, having on his examination-in-chief described several gardens in the neighbourhood of the works as in the utmost health, was asked in cross-examination by the plaintiff's counsel if he knew Glasgow-field (grounds in the neighbourhood), and, having answered that he "knew Glasgow-field, and "never knew of any damage done there," he was then asked "whether he had known of any sum having been "paid by the defendants to the proprietors of Glasgow-"field for alleged damage there occasioned by their "works." It was held that the question was inadmissible as leading to a new collateral inquiry, which, answered either way, could not affect the issue or test the credit of the witness. If he answered that money had been paid, the payment would not be proof of damage done, as it might have been paid to buy peace. *

It is not enough to prove certain facts, and then to say that from those facts the existence of a nuisance must necessarily be inferred.†

Balance of Public Convenience.

Where public rights clash with private rights the rights of the individual must succumb according to the maxim

"Salus populi suprema est lex."

It may be reasonable that the public should compensate the individual for the action he has sustained, yet

* *Tenant* v. *Hamilton*, 7 C. & F., 122.

† *Ball* v. *Ray*, 8 L. R., Ch., 467; 28 L. T., 346, 21 W. R., 282.

that is a question of policy for the legislature rather than of law for the courts.

The legislature sometimes considers the public benefit more than equivalent to the public inconvenience, especially in the case of railways. *E.g.* the Stockton and Darlington Railway Company made a line next to a highway, and the engines frightened horses on the highway. The company were held not indictable as there was no implied obligation in the company to make screens to hide the vision of their engines from the road.*

The Midland and Lancashire and Yorkshire Railways had about seven to ten engines at a time in certain sidings near Colne, in Lancashire, which emitted such smoke and vapours as to leave a deposit of black soot and sticky matter on the trees and shrubs of adjoining garden grounds.

The companies contended that the Railway Clauses Act, 1845, authorised them to commit even a nuisance, provided they worked their line properly and used due precautions, and that the use of the shed and sidings for cleaning their engines and relighting their fires was a necessary and legitimate one.

The learned judge who tried the case said the legislature, as a condition of the large privileges extended to railway companies, assumed that it was in the power of the companies to prevent such a nuisance, and that they were bound to prevent it.†

An injunction may be obtained to restrain the continuance of a public nuisance, but the Attorney-General must be a party to the proceedings, unless the plaintiff have sustained special damage.‡

* *Rex* v. *Pease*, 4 B. and Ad., 30.

† *Smith* v. *Midland Railway Company*, 37 L.T., 224.

‡ *Attorney-General* v. *Shrewsbury Bridge Company*, 21 Ch. D., 752; 51 L. J., Ch., 746; 46 L. T., 687; 30 W.R., 916.

Attorney-General: When entitled to take Proceedings on behalf of the Public.

Clerks to local authorities should carefully study the question as to when the Crown should be set in motion to stop a nuisance.

The Attorney-General may properly take proceedings on behalf of the public when acts tending to the injury of the public are being done without lawful authority, even though no evidence be produced of actual injury having been inflicted.*

Nice questions sometimes arise as to the balance of public convenience.

An information was filed at the relation of persons dwelling on the River Aire complaining of a nuisance caused by the sewage of Leeds. The nuisance to the relators was proved, but it was in evidence that if the nuisance was stopped the health of the inhabitants of the town, whose number greatly exceeded the sufferers by the nuisance, would be endangered, but it was held that the court could not interfere with the Attorney-General's discretion, or consider the balance of inconvenience.†

In the case of some copper-smelting works at Birkenhead, it was held by Wills and Vaughan Williams J.J., that Section 334 of the Public Health Act, 1875, which provides that nothing in the Act shall be construed to extend to the smelting of ores and minerals so as to obstruct or interfere with any of such processes respectively, only exempts the owner of such businesses from the liabilities created and penalties imposed by the Act, and does not

* *Ibid.*

† *Attorney-General* v. *Leeds* (*Mayor, &c.*), 39 L. J., Ch., 254 ; 22 L. T., 330 ; 18 W. R., 517, affirmed ; 5 L. R., Ch., 583 ; 39 L. J., Ch. 711 ; 19 W. R., 19.

relieve them from liability for a public nuisance in a suit brought by the Attorney-General for its abatement, nor from their common law liability to an owner whose property is injuriously affected by it.*

Rights of Public Corporations.

The Nuneaton Local Board of Health entered into an agreement with a sewage company, in pursuance of which they afterwards granted a lease to the company of the sewage works of a town, and of a plot of land, for a term of 14 years, the company covenanting that they would during the term keep the outfall of the works, with the engines, pumps, and apparatus, in proper working order, so as to admit of the free flow of the sewage through the sewers communicating with the works, and so that the same might not at any time be stopped. To an action by the local board against the company, complaining that the company's works were insufficient to treat the sewage successfully, that they were pumping only a portion of the sewage out of the sewers, and were damming up or heading back the residue in the sewers, so as to be a nuisance to the inhabitants of the town, and that the local board were being threatened with proceedings, and praying for an injunction to restrain the sewage company from permitting the sewage to remain in the sewers so as to be nuisance or damage to the plaintiffs, and from damming up or heading back the sewage in the sewers, the sewage company took exception on the grounds that the court could not superintend the proper performance of the works, that the plaintiffs had alleged no special damage, and that it was not the practice of the court to restrain the infringement of a public right

* *A. G.* v. *Logan* [1891], 2 Q. B., 180.

at the suit of a corporation, except at the instance or in the presence of the Attorney-General. The objection was overruled, and an injunction granted.*

Liability of Public Bodies.

The Corporation of Basingstoke having become the sanitary authority in 1873, suffered sewage to continue to run from a drain in the town into a canal by a culvert running through private property, creating thereby some nuisance and some damage to the owner. They were held liable to have an information laid against them, and liable to be restrained by injunction from continuing such nuisance and damage, though they derived no profit from the works causing the nuisance.†

Notice on Local Authority.

Section 264 of the Public Health Act, 1875 (38 and 39 Vict. c. 55), requiring a month's notice to be served on a local authority before commencing an action for anything done under the provisions of the Act, does not apply where the object of the action is to restrain the commission of a nuisance, and this notwithstanding the plaintiff also claims compensation for past damage.‡

Conclusion.

I am reluctant to weary you further with dry and technical details, for fear I should be adding one more to the long list of annoyances with which society is

* *Nuneaton Local Board* v. *General Sewage Company*, 20 L. R., Eq,. 127 ; 44 L. J., Ch.. 561.

† *Attorney-General* v. *Basingstoke* (*Mayor*), 45 L. J., Ch., 726 ; 24, W. R., 817.

‡ *Flower* v. *Low Leyton Local Board*, 5 Ch. D., 347 ; 46 L. J., Ch. 621 ; 36 L. T., 236 ; 25, W. R., 545, C. A. reversing ; 36 L. T., 236 ; 25 W. R., 423

troubled, and indeed I shall not be surprised if you regard this Paper itself with its numerous legal conundrums as an illustration in itself of a nuisance. There is, however, one inference from a consideration of this complex topic which is irresistible, and that is, that whatever pride or interest we as professional men may, and I trust do, take in the interests of our respective clients who are seeking to expand their manufactories and prosper, we must not lose sight of the fact that we have other larger interests to consider, namely, to safeguard as far as possible the towns and cities of the United Kingdom from becoming little hells upon earth, and to preserve to the best of our humble ability untainted currents of air in public thoroughfares and unpolluted currents of water in urban watercourses, bearing in mind that if they are too freely sacrificed in the interests of the private manufacturer, the British manufacturing products of which we are all so justly proud may be a curse instead of a blessing to humanity.

Mr. Howard Martin (Fellow) said it was with very great pleasure that he moved a vote of thanks to Mr. Arnold Statham for his very valuable addition to The *Transactions* of The Institution, which already included a number of useful papers giving information as to the law in many of the circumstances which frequently arose in connection with the management of real property.

Speaking as a layman, the general impression he derived from the Paper was that the true wisdom of a surveyor would be shown by his being very careful how he advised a client on a matter of law, without first going to a competent lawyer for an opinion.

If the Paper convinced Members of the wisdom of that course it would serve a very useful purpose. It must have entailed an enormous amount of labour, and the details of the cases were set forth with admirable clearness.

It was not always that a Paper by a lawyer on a legal subject made it much clearer to the lay mind, but he thought all would agree that in this instance much light had been thrown on a very difficult and complicated subject. He only regretted that Mr. Statham had thought it necessary to shorten the reading of his Paper by omitting portions of it. No doubt he did so out of a mistaken kindness towards his hearers, but the matter was so valuable and interesting that he for one would have been glad to hear it read in full, even though the reading of it had been interrupted by the midday adjournment.

Mr. C. Bidwell (Fellow) said it gave him great pleasure to second the vote of thanks to Mr. Arnold Statham. There was one matter dealt with in the Paper which was of special interest to surveyors, namely, the pollution of rivers. This was becoming a serious question, which would have to be dealt with in the near future, not only in towns, but in the country districts. He happened to be chairman of an urban district council, and he knew what difficulties arose in dealing with the question under the Public Health Act.

He was always very careful how he advised a client to go to law. He might get a decision which would be upset on appeal, and be called upon to pay all the costs. In such cases the Paper would be an exceedingly valuable one for reference. If one got into a tight place one would be able to refer to Mr. Arnold Statham's

learning and experience, and consider what was the best course to adopt.

The meeting then adjourned for luncheon with the Lord Mayor of Leeds. On resuming—

Mr. H. Chatfeild Clarke (Fellow) said he heartily agreed with Mr. Howard Martin and the seconder of the vote of thanks that The Institution was deeply indebted to Mr. Statham for the very able Paper he had prepared and read. He thought that not only its length, but also the profound knowledge of the law which it evinced, would preclude much discussion by lay members, who would, at all events until they had carefully read it, feel great difficulty in grasping its complicated details.

The cases quoted seemed, as Mr. Statham had said, to be very often governed by the amount of the nuisance, and whether a man came to the nuisance or the nuisance came to him. As Lord Justice Fry (he believed) said, "If you live in a big city you must put up with some of "the nuisances of a big city." He believed that was laid down during the trial of a party-wall case.

There was a case in point, in the Isle of Wight—the home of our beloved Sovereign. Across the Osborne estate a south-westerly wind brought a miasma which seriously interfered with the pleasure of the grounds, in the form of fumes from large cement works on the bank of the river Medina, and he believed it was the fact that at one time this was complained about by her Majesty's advisers, but the answer was that the cement works were there long before Her Majesty bought Osborne, and as she came to the nuisance she must expect more or less to put up with it.

He agreed with Mr. Statham that the actual facts must be weighed in all these cases. It was no doubt hopeless to go for an injunction on the ground of a small personal nuisance, such as, for instance, the playing of pianos and the conducting of a school adjoining a house. Everyone must be prepared to face a certain amount of personal inconvenience.

Mr. J. Hepper (Fellow) said he hardly felt in a position to discuss the Paper after having merely glanced over it and hearing certain portions of it read by Mr. Statham. He recognised it as a valuable work of reference, and he did not think it allowed much, if any, room for discussion. It was evident that Mr. Statham must have spent a great deal of time upon it, and the hearty thanks of surveyors were due to him for the information he had so laboriously classified.

The Paper touched on some points which came under his own notice. He never consulted the law on those points, but he consulted his common sense, and he found sometimes that this method worked out better than recourse to the law. So far as he was personally concerned he regarded the Paper of Mr. Statham as of such high value that it required private study rather than discussion. He should put it among his papers as a work of reference, to be appealed to whenever points of difficulty arose, so that he might look at the facts that came before him in the light of the information given by the Paper.

Mr. A. M. Fowler (Fellow) said a very important point was raised in the Paper with respect to the sanitary condition of towns and the pollution of rivers by trade effluents. Several large schemes had been recently

advocated, and the best method of dealing with these trade effluents was becoming a very serious question. For the treatment of sewage there were now perhaps 20 systems in existence, but the cost of purifying or making the effluent passable into the river, to satisfy any Rivers Board, was so enormous, as Leeds had found out in its early struggles with the question, that it was simply impossible at any reasonable cost to carry out that work.

Then the question arose, What was to be done with such trade effluents? They were so great a nuisance that they must be dealt with in some way, while the manufacturer must be also protected. It was possible to design a sewage scheme, and to have large tracts of land for the treatment of the effluent after the solids had been precipitated; but what was to be done with the great influx of water? Some of those effluents had not five per cent. of solid matter in them, and the tanks were simply deluged if they had to take all the water in order to precipitate the small quantity of solids in suspension in those effluents; the land would be inundated, and the crops simply swamped or destroyed.

In England, with its important manufacturing trades, spreading as they did throughout the length and breadth of the land, this was now becoming a very serious question, as manufactures were increasing to a large extent, and more and more water was required.

The demands on the great water supply went on increasing, and manufacturers and corporations and the guardians of the public health were at their wits' end to know what to do. Legislation did not get over the difficulty of dealing with the sewage. As he had said, there were more than 20 systems which would deal with sewage, but it was a question of cost.

The inhabitants of Leeds well knew the difficulties that the city had to meet. In 1866-67, a great scheme was propounded, and one man he knew made something like £60,000 on the Stock Exchange over it. The system was to completely purify the sewage, but in working it proved so costly that a thorough investigation during its progress was undertaken. When it came to weighing the material and analysing the effluent, with a view to seeing what could be done with it, the whole scheme fell like a house of cards; and now, after all those years' experience, Leeds simply used lime, thus going back to what was done 34 years ago. All the legal knowledge contained in the Paper did not assist in any way in remedying these difficulties; and he did not see how the sewage of large towns could be satisfactorily got rid of until some legislation was propounded and matured, designed to deal with these trade effluents.

Mr. JOHN H. HANSON (Fellow) said the discussion had now wandered, if he might say so, into a question which was of very particular importance in the West Riding of Yorkshire, and that was the purification of rivers. A previous speaker had referred to it as a matter of considerable moment which came within the scope and practice of nearly every surveyor, especially those interested more particularly in agriculture, but the position in the West Riding was quite unique. To deal with domestic sewage was, as Mr. Fowler had said, comparatively simple, but when that sewage was mixed with trade waters to the extent that it was in that part of the country, the problem became a much more difficult one to solve. In order to give some idea of what the question meant within the

district of the West Riding Rivers Board, he might mention that there were 2,000 works which fouled water in the process of trade. Out of those 2,000 works 800 discharged their fouled water into the sewers, and they so got rid of the difficulty and liability of purifying the trade waters. The remaining 1,200 manufacturers had this question to face, and the Rivers Board was now pressing them on the matter First of all as to the cost, roundly he thought it would be agreed, by all who lived in the West Riding and had any experience of such works, that £250 a year per works as an average figure would be at any rate a sum not too large. It would certainly be exceeded by many of the manufacturers. That represented £300,000 per annum to the manufacturers of the West Riding as the cost of dealing with their trade waters. He gave those figures in order to show the importance of the question in that particular district. £300,000 per annum was the very least sum it would cost the manufacturers in the West Riding, who were not connected with the public sewers to deal with the matter effectually. The Paper referred of course more particularly to the law of nuisances, and it struck him when he saw the title that it was a very suitable subject to select for a Paper to be read in Leeds; for many such nuisances as were more particularly referred to could be found in that city or in its suburbs.

With reference to the law as it now stood, it would perhaps be well to consider for a moment the position of the manufacturer with respect to the several Acts of Parliament. At present there were many cases where one manufacturer whose works were connected with the public sewer, who had a next door neighbour making the same class of goods and selling them in the same

market, would, under the law as it now stood, have to deal with his own trade waters, the effect being that he would not only have to bear the cost of purifying his own trade waters, but must contribute through the rates to the cost of purifying the trade waters of his competitor in trade. There was great complaint on that ground, and he thought it would be agreed that the present system was not an equitable one in that respect, although the manufacturer using a public sewer was there by right. The liability for the cost of the treatment of trade waters should first be placed upon a fair and equitable basis as regards the manufacturers, and this could only be done by an alteration of the law. It seemed to him that all manufacturers should be put on one footing, and that they should all have the right of discharging, under proper conditions, into the public sewer or else should all be excluded. If not dealt with in that way, the only other practical way of avoiding injustice was to provide that if a manufacturer had to deal with his own trade waters, his mill premises, as such, ought not to be rated for the treatment of domestic sewage—in other words, to exclude manufacturers from the present system of assessment and let them be relieved of the rates to the extent of the cost of dealing with domestic sewage. These were, he thought, the only two ways in which this complicated question could be dealt with.

It seemed to him there must be some change in the position of the parties before any equity could be established in this matter of dealing with trade waters.

In the treatment of sewage, great difficulties had arisen such as Mr. Fowler had indicated, sewers being constructed in the old days to take practically anything

and everything. Sewers laid 25 or 30 years ago not only took the street water and roof water and the water from yards, but streams and everything that was liquid came into them, and thus there arose one of the difficult questions which sanitary engineers had to deal with in the treatment of the sewage of towns. If all the clean water could be dealt with by a separate system, the question would be more simple.

He thought the subject worthy of the careful consideration of The Institution, and he was glad that the remarks of previous speakers had given him the opportunity of referring to the question generally.

Mr. Thomas Blashill (Fellow) said that having no legal knowledge of the subject, he was bound to look at it from the point of common experience and common sense, and being reduced to that humiliating position he ventured to give expression to an idea that struck him.

There were two distinct points which a man had to consider in setting up a manufactory and carrying it on from day to day, namely, the article he took into his works, and the stuff he had to get away from them. It was essential that he should not only get what he wanted, but should also be able to get rid of what he did not want. If he could not get rid of his refuse the site was evidently not suitable for carrying on the manufactory. What were our chemists for if they were unable to advise some way of dealing with these waste products ? Thirty years or so ago he was concerned in the study of gas manufacture. At that time the disposal of the waste products was the great difficulty. The chemists set their wits to work in a practical manner,

and the waste products of gasworks had now become of enormous value ; in fact he had heard it said that in some cases one could afford to blow off the gas, which might really be the waste product, the aniline dye, &c., being the substantial things on which to make the profit. Whether that was literally true or not did not affect the question to be considered, which was, if the manufacturers were in this difficulty, how they might get out of it. There was, he thought, only one way, and that was to study the matter from the chemical side, and until that could be done it would be difficult to carry on a manufactory, whether in the City of Leeds or anywhere else.

Mr. Howard Martin said he would ask a question which perhaps Mr. Statham would answer when responding to the vote of thanks.

It seemed to him, from the Paper, that there were some cases in which it was a defence to a nuisance that the person complaining of it had moved into the neighbourhood of it since the nuisance commenced, and other cases where this was not a defence, and the person who committed the nuisance could be restrained by somebody who moved into the neighbourhood afterwards. He should be glad if Mr. Statham would say on what line the distinction was drawn between those two classes of cases.

The vote of thanks having been put to the Meeting and carried unanimously—

Mr. ARNOLD STATHAM, in reply, said he felt extremely gratified by the very high tribute paid to the merits of his Paper by so distinguished a Member as the proposer, Mr. Howard Martin, and flattered by the graceful compliments which had been paid to it by Mr. Bidwell and other Members.

One nuisance, he thought, that required to be dealt with was the "advertisement" nuisance. A friend of his bought a beautiful little country cottage, and congratulated himself on his outlook. He went down to it in the spring, and found facing him an enormous hoarding, over twelve feet long, which announced the merits of a practical trousers maker's goods, giving an illustration of the practical trousers and stating the price. That was certainly a nuisance. The principle of "think only "of yourself," was, he feared, invading the manufacturing districts, and he hoped that if his Paper had any permanent practical effect, it would be to inculcate the principle of "live and let live," which was what the law on the subject aimed at.

He would first answer Mr. Howard Martin's question, if he might venture to attempt to sum up in a sentence what had taken many judges volumes of Reports to enunciate.

Whether a man went to a nuisance, or the nuisance came to him, was an important point. It was rather an estoppel to a man alleging a nuisance, for the other side to point out that he went deliberately up to it and smelt it. Speaking generally (there must of course be a number of exceptions) the principle was, that a man who took a house in a residential locality had a right to expect that the arm of the law would protect him, so far as might be necessary for his comfort and that of his

family, in the enjoyment of the surroundings of his residence, *qua* resident. Accordingly the physician (whose case he quoted) who lived, he believed, in Wigmore Street, and who took a residence in a residential neighbourhood, but in the course of time built out an additional consulting room, had a right to complain that somebody carried on next door a trade which caused a disturbance and nuisance to him, although it had been going on for some years. But it appeared that if a man walked up to a nuisance in a district where he must expect nuisances, the law was different. If a man in the heart of the manufacturing quarters of a town like Sheffield were to start a school, say to teach the the piano or violin, he could not expect to stop the trade of the locality. It was a question primarily of degree, and secondly of locality. He gathered the law to be that if A went next door to B, and B was a nuisance-monger, A *could* complain, if B was a nuisance-monger in a district which was not devoted to nuisances. But if A went next door to B, who was a nuisance-monger, in a district surrounded not by the comforts but by the nuisances of civilisation, then, to adopt that refined classical quotation to which he had alluded in his Paper, " a man who takes lodgings in a hen roost cannot com- " plain of the fleas."

He was much interested by what Mr. Chatfeild Clarke had said about the cement works in the Isle of Wight. Personally, he thought the greatest nuisance in the Isle of Wight was the barbed wire. All hunting men thought it was worse than a nuisance, and that farmers ought to be not only restrained, but prosecuted, for putting up this abominable death trap in beautiful hedgerows and meadows in many parts of England.

Anything that Mr. Hepper said in praise of his Paper, was doubly acceptable to him. He had known Mr. Hepper for many years, while on the North Eastern circuit, as one of the most respected expert witnesses he had to do with, and one who never spoke unless he knew his subject.

He was particularly struck with what Mr Hanson said as to the enormous expense of dealing with the purification of water coming from factories, which had not the privilege of draining into the sewers. The question, how to deal with this water in the surrounding districts, was becoming a matter of practical politics with many municipal bodies, to whom it was far more important than many of the other questions brought before them, as on its solution the health of the locality was enormously dependent.

His object had been not so much to make his Paper interesting, as to deal with the law on the matter as decided by the courts. Although there was no published text-book on the subject of nuisances, yet the mass of case law upon it was ten times in volume anything contained in his Paper. He had only touched on those aspects of the matter which might more particularly affect surveyors in practice; and the greatest tribute Members could pay him was to regard it as a work of reference, which he hoped would lead and not mislead them. He again most sincerely thanked the Members present for the kind and patient way in which they had listened to his Paper, and for the appreciation they had shown of his efforts in preparing it.

The PRESIDENT said that at that late hour of the afternoon it was considered impossible to do full justice

to an admirable Paper which had been prepared by Mr. A. T. Walmisley (Fellow) on the subject of "Shed "Coverings for Farm Homesteads," and it had therefore been decided, after consultation with the author, to defer the reading and discussion of the Paper to a future Meeting in London.

The proceedings then terminated.

DISCUSSION

ON

THE LAW AND PRACTICE AS TO ANCIENT LIGHTS.

At the Ordinary General Meeting of THE SURVEYORS' INSTITUTION, *held on Monday, May 7th,* 1900.

THOMAS MILLER RICKMAN (President) in the Chair.

The PRESIDENT opened the discussion by reading the following notes prepared by him :—

The subject to which our attention is called this evening is the Law and Practice of Ancient Lights—a subject which does not lend itself either to exhaustive or discursive treatment.

The Royal Institute of British Architects having passed a resolution in favour of an alteration of the law, and having invited The Surveyors' Institution to co-operate with them in considering the present aspect of the subject with a view to amendments of the law, and the legal aspect of the customs relating thereto, the special object I have in these observations is to place before you an outline of the discussion which has lately been carried on there and elsewhere with a view of eliciting your opinions as to the course which our Institution should take, and the objects which it is desirable to attain by means of the joint action proposed.

I shall assume that you have followed the recent discussion to which I have referred, and that you are therefore aware of the sources from which the various points and suggestions to which I have to draw your attention are derived.

I am aware, of course, that it is only a section of our members and of those of the Royal Institute of British Architects, who are specially versed in these questions; but on their behalf, and as a matter of public interest and importance, I feel that the subject has a claim upon our attention as an Institution. I may further premise that it is only on the points on which the two professions agree that we are likely, jointly or singly, to arrive at any practical result. It is alleged—

That under the existing law (especially the Prescription Act, 2 and 3 Wm. IV., c. 71, 1832), after twenty years' uninterrupted user of light coming over adjoining property, the tenement so using it becomes dominant.

That the power thus gained is in many cases exercised in such a manner as to prevent the servient owner from effecting improvements in his tenement.

That when such improvements have become necessary, they cannot be carried out except by large payments to the dominant owner, greatly increased by professional fees.

That it has come to pass that these circumstances (whether the servient or the dominant tenement is of the greater importance), are manipulated so as to lead to a species of blackmail.

That the present course of proceeding is unsatisfactory, and that the actual extent of user of rights of light is not taken into consideration by the existing tribunals.

That the tribunals as now constituted cannot take a just view of the value of these rights, or of the relative values of the respective properties and the several interests therein, or of those special circumstances which often exist which should point to such rights being, or not being, paramount over other considerations.

That one result of the Prescription Act, perhaps not contemplated by the framers of the measure, was to abolish the old custom of the City of London, that each owner of a site could carry up his building without interference from his neighbour.

That though the law cannot and does not take notice of trivial grievances, no sufficient reference is allowed to the purposes, trivial or otherwise, for which dominant lights have been used, and that the absolute maintenance of trivial advantages is too drastic a proceeding.

That the fight in the legal mind between damages for and prevention of injuries, present or future, is admitted to show an incoherence in the law, and that it is the assumption on which the law is based that needs revision.

That the practical method by which most cases of difficulty can be settled is by upsetting the hard and fast legal lines, and that judges of the Supreme Court who first of all have to administer the law must have great difficulty in giving decisions.

There have been suggested and discussed certain questions of principle which will be set down by some as academic, and, as different minds may view them, as of greater or less importance than practical details.

The propriety of each tenement obtaining its light from its frontage to the street and from the curtilage

of its own premises would appear to be the basis for some of the County Council's new clauses in the last London Building Act. It would appear also to be admitted under the ancient custom of London, abrogated by the Prescription Act.

Would it not be a reasonable regulation that no rights of light should have any power of interfering with buildings on the opposite side of a public street or way, whatever its width ?

Perhaps rights of light under the Prescription Act might be so modified by enactment that at any break of tenure they should be extinguished.

Perhaps dominant lights might be treated somewhat in the manner that sky signs have been dealt with in the last London Building Act.

Both in London and in other large towns and in parts which have been long built over, there are often great advantages to be obtained by throwing two premises with internecine rights together, from the diminution of dividing walls and of the number of staircases, and by obtaining larger rooms suitable for purposes of a higher class ; but in making such a rearrangement it is now necessary first of all to ascertain whether there are not other premises which must be obtained to prevent the scheme of rebuilding becoming abortive.

The system of leasehold tenure on large estates in London has the advantage of giving the opportunity, from time to time in the history of each, for rearranging the separate premises, clear of all easements, for purposes suitable to the present time but not contemplated at the time of the last erection or during the period while these easements were accruing.

Various palliatives have been used in practice and are among the suggestions which are before us, such as

the enlargement of existing windows, the lining new walls with glazed bricks or with tiles, also the permission to raise opposite buildings to the same height as those complained of as obstructive; but these are palliatives only, and I would suggest that they are not proper subjects for our present discussion.

Before dealing with the suggestions which are and may come before us I may make one or two observations.

We must not be deterred by the difficulties of the case from endeavouring to effect the disentanglement of the question.

The great change in the relative value of London sites as compared with the value of the material used in the construction of the buildings upon them, leads practical men almost to neglect the value of the old materials, and to consider a site for its potential rather than its present use, and renders it a matter of extreme difficulty to reintroduce special features in their original places as handed down by the predecessors in title of a property.

Actual sunlight in London can only be enjoyed for a portion of the working day; during a large part of our working time artificial light must be used. The curtailment of user of windows by dirt, by blinds, and other means, proves in many cases the actual value put upon the windows by their occupiers. One hardly ever sees a window which has been enlarged, except for the purposes of an artist, until the time of a rebuild.

I would add that if we propose arbitration or a court composed of non-legal assessors, we must remember that an arbitration is only of use if both parties are desirous of obtaining a just reward.

We must also remember that the regulations affecting

the heights of buildings and their outlines and the necessary open spaces attached, have introduced great changes in our mode of building and exercise great influence on our user of light.

The proposals before us are, among others:

That we should have technical advisers to assist the present courts.

That we should have a tribunal for these special cases.

That the County Council should (if not *ultra vires*) make bye-laws on the subject of rights of light.

There is also the suggestion, strongly put forward, that the London Building Act, 1894, should be amended so as to deal with rights of light somewhat in the same manner as party-walls are therein dealt with. Hitherto the two surveyors and the third surveyor, though they could adjudicate on questions affecting party-walls, could not go beyond such questions. To enable them to take into consideration questions of rights of light would require further powers.

Should Parliament grant powers for the Metropolis, the Act conferring them must be made to apply to other large towns, and one fails to see why such towns should not have the advantage of having their party-walls dealt with as they now are under the London Act.

While the suggestion of introducing the machinery of the three surveyors under the party-wall clauses of the Building Act would not satisfy some who have discussed the subject, the present Tribunal of Appeal seems well fitted to deal with important questions which such a suggestion would introduce into the Building Act.

In any case of legislation for London, the London County Council would necessarily have a paramount voice in the matter.

However constituted, the court should be empowered to decide, according to the balance of general convenience, whether interference with existing rights of light should be prevented or should be permitted, and on what terms.

Other proposals are that we should adopt the system of Scotland, where the servitude cannot be constituted by prescription, but is regulated by express grant or contract, and where there are Dean of Guild Courts specially conversant with building matters, and where properties are intermixed in a manner we wot not of.

That we should adopt the French system of no property at all in light over another man's land.

That we should adopt the Swedish system of having no easement except by written agreement.

In all these cases the basis of the proposed alterations is a reasonable presumption against dominant lights, contrary to the present presumption of law, which is variously described as: The acquiring of property by theft; The system of gaining, surreptitiously, an advantage which is not in accordance with views of morality; The obtaining an easement by prescription, which is a simple piece of dishonesty; A vested interest in your neighbour's property; A dim survival of feudal tyranny; and in many other terms which would introduce topics of prejudice into the discussion. Under most of these views the registration of rights is pointed to as most desirable.

We must remember that we may have to deal with the case of a row of houses erected by a freeholder and sold house by house, each overlooking the other's curtilage.

If the rights of such are not to be respected, some would have no scruples in attributing to the purchaser equal fault with the original constructor in the evasion of the duties of a citizen.

Whatever is done, those who move in the matter will be confronted with the ugly word confiscation, which can only be met by the retort that the purchaser of an easement obtained by prescription has bought stolen goods.

The valuable service which the Prescription Act has done in the absence of real registration must not be forgotten: if we can remedy a mistake let us do so, while retaining many advantages obtained by the Act.

In conclusion, I cannot do better than recommend, for adoption by any committee that may be appointed to consider and deal with this matter, the suggestions put forward by Mr. Cates, who has done so much to mitigate these evils.

That we should not be content with palliatives.

That we investigate the principles on which it is alleged that the present law is based.

That we ascertain what were the reasons for passing it.

That we illustrate its ill effects and give reasons for pressing for a change.

That we inquire into the laws of other countries on the subject.

That we devise, and promulgate for adoption, some system by which owners, servient from mere aggression, may be freed from their unjust servitude now and for the future.

The SECRETARY read the following communication

from Mr. ARTHUR CATES, who was unable to be present at the Meeting:—

Probably the earliest mention of "rights of light" in London will be found in Fitz Elwyne's Assize of Buildinge, 1 Richard I., 1189.

"*Of the Obstruction of the View from Windows.*"

"Also if any person shall have windows looking upon his neighbour's "land, although he may have been a long time in possession of the view "from such windows aforesaid, nevertheless his neighbour may lawfully "obstruct the view from such windows, by building opposite to the same, or "by placing anything there upon his own lands, in such manner as may to "him seem most expedient; unless the person who has such windows can "show any writing by reason whereof his neighbour may not obstruct the "view from those windows."—*The Liber Albus* (the White Book of the City of London), translated by H. J. Riley, 4to, London, 1861, p. 280.

Although the right of light is a negative servitude, it in course of time appears to have been dealt with in a similar manner to those affirmative easements which are acquired by direct action over the property of another; and it came to be assumed that if a person had for many years enjoyed such an easement over another person's land, it was only reasonable to presume that he had a legal right thereto, or the owner of servient land would have stopped the user; a grant was presumed, and the fiction of a "lost grant" was devised.

To establish a prescriptive right it was necessary to prove that it had been enjoyed from "the time whereof the memory of man runneth not to "the contrary," that is the reign of Richard I., but this came to be reduced to a much shorter period, as in 1801 Lord Kenyon in *Cotterell* v. *Griffiths* held that an adverse of enjoyment of windows for twenty years was a sufficient title in an action for obstruction; but to establish a right by prescription the owner of the servient tenement should have been, during the time required, in a position to contest, and to interfere with, and stop the acquisition of the right, and have neglected or failed to do so; a power which in the majority of light cases could never be exercised by the servient owner. Prescriptive rights have nevertheless been held to have been acquired by the dominant owner notwithstanding that the servient owner may have been powerless to protect himself.

In a report made May, 1882, by Mr. Leybourn Goddard to the Light and Air Committee of the Royal Institute of British Architects (vide *Proceedings Royal Institute of British Architects*, 1882, pp. 254-267), he summarises the growth of the law and the origin of the Prescription Act in a manner which will be useful for reference and as a basis for further inquiry.

The Prescription Act, 2 & 3 Guil. IV., cap. lxxi., 1st August, 1832, is one of the results of the labours of the Royal Commission on the Law of Real Property; but it does not appear that the inquiries of that Com-

mission were specially directed to the question of the law of light, or that any further consideration was given to it than is expressed in the words of Lord Tenterden when introducing the Bill : "The third part "relates to ancient lights and their obstruction. As to these also, judges "were often obliged to leave it to juries to presume that they were ancient "lights. It was in his opinion preferable to fix the period of twenty "years by law, for which period, if uninterruptedly enjoyed, they were "then secure from challenge, unless originally enjoyed by contract or "agreement."

Thus Section 3 of the Prescription Act became law without discussion or consideration, the right of building on ancient foundations was abolished, and the right over another person's land can be acquired by the mere effluxion of time, although the owner of that land may not be in a position to defend himself from the aggression, and may be without the power to obstruct the windows which, in time, will so seriously control his user of his own lands.

The tyranny and extortion which have grown up under the authority of the interpretation and operation of this law, have become so intolerable that some effective remedy is urgently needed ; in no other country is such a law in force.

In France and those countries which have adopted the Code Civil, the law is defined under Articles 675 and 680 of the Code, and by municipal building regulations which define the height of buildings as regards the streets, by and relative to the width of the street, while an owner has the right to open windows overlooking the land of an adjoining owner on condition that the wall in which they are placed is set back at the least 1·90 metres (6·23 feet) from the boundary line. If the adjoining owner desires subsequently to build on his land he may do so, subject to the same conditions ; if he desires to form openings, setting back the prescribed distance, or otherwise building up to the verge of his land without regard to the windows formed by his neighbours.

In Scotland, such a servitude is regulated by express grant or contract, and cannot be constituted by prescription: it is a negative servitude which can only be constituted by a grant and does not admit of possession, and therefore cannot be acquired by prescription.

However mischievous and oppressive the law may have generally been, it has in some respects had good results, by (in the absence of effective municipal building regulations) exercising some control over the operations of reckless speculators, too often carried out without regard to the interests of public health ; but the evils far outbalance any such good.

General legislation which, in the public interest, controlled the erection of buildings in such manner that the height should have due relation to the width of street, and that the space in rear should provide adequate light and air from the builder's own land, should be sufficient. If the dominant owner desired more light than that *directly* flowing *down* on to his own land, he should, as in Scotland, be only able to acquire it by direct agreement with his neighbour.

More than thirty years ago the Commissioners of H.M. Woods, in charge

of the Land Revenues of the Crown in London, on my advice, adopted for insertion in every lease to be granted on the Crown estates in London, a proviso precluding the lessee from having or acquiring in virtue of the demise any right of light against the Crown or its lessees in respect of other property. This has worked admirably, scandalous litigation between tenants has been prevented, the disgraceful mutilation of important buildings has been avoided, the development of the estate has been improved, and as time goes on all rights of light will be abolished on the estate, and the good old times of 1189 will be restored, subject of course to the controlling authority of the lessor, who will take the place of the municipal authority, which should control the vagaries of those who build. Similar conditions prevail on other large estates, and the necessity for such provisoes is, in itself, a sufficient condemnation of the law as it now stands.

The suggestion made by the Architects that the Surveyors should join in appointing a Joint Committee to investigate and report on this subject, with a view to amending the present state of things, appears to be excellent, and if happily adopted, should lead to some steps being taken to procure a modification of the present condition of the law, by which a dominant owner can, by effluxion of time alone, acquire rights over the property of a servient owner, for which he pays nothing, and which, while greatly increasing the value of his own land, most seriously controls and hampers the user by such servient owner of his own land, and takes from him a large proportion of the value of his property without his being able to protect himself in any way from the aggressive dominant owner.

ARTHUR CATES (Fellow).

Mr. J. DOUGLASS MATHEWS (Fellow) said he thought the President had put before the Meeting practically all the points which had been raised in the Papers read at the Royal Institute of British Architects and the discussion that followed. He was glad to find that the Institution was prepared to appoint a representative Committee of Members to act with the Committee of the Architects to consider the law relating to light and air.

The subject was one of great importance, and should not be looked upon from one point of view only; but all who were interested in questions relating to building should have the opportunity of expressing their opinions, so that by combined action pressure might be brought to bear on the Legislature with a view to altering the present state of the law, which was so vague that it was

difficult to know where to draw the line. Unfortunately if there were the least interference with the dominant owner's rights, the servient owner had no means of compelling him to accept compensation, and consequently the building owner had to alter and mutilate his building. Any suggestion for legislation which would enable the servient owner to ascertain what was necessary to preserve the rights of the dominant owner, should, he thought, receive careful attention.

With a view to lessen these difficulties a Committee of the Royal Institute of British Architects had made certain propositions.

The first was that, to prevent delay and expense and dispute as to facts, before any old building was taken down a full record should be obtained, and the drawings certified by a competent authority.

That following the procedure of the Building Act both the dominant and the servient owner should each be represented by his own surveyor, and that the two surveyors should meet in consultation. He ventured to say if that method were adopted there would be very few disputes as to light and air, for if two practical men approached the subject with a view to settlement they were generally able to come to a conclusion satisfactory to all parties.

If, however, they were not successful, it was suggested that they should appoint another surveyor, but not quite as the Building Act provided—a third surveyor who should agree with one of the other surveyors, and that the third surveyor should act as an arbitrator. The reason was that the opinions of the representative surveyors would in all probability be so different that it would be almost impossible to get them to agree, but that if the third surveyor acted as an arbitrator he would have the

advantage of hearing the opinions of both the other surveyors, which would assist him in arriving at a decision.

If either of the parties were not satisfied with the award it was proposed to go to a Tribunal of Appeal, constituted in a similar way to that under the Building Act. If the Act was to apply to the whole of the United Kingdom he feared it would be rather troublesome to bring every case to London. That was, however, merely a matter of detail. The tribunal should have the power to inspect the premises and consider the award, with the assistance of evidence.

With such a tribunal the decision should rest as to the extent to which the buildings should be altered, or whether the case was a suitable one for compensation, and, if so, to assess the amount. But in order to secure to every man the right which an Englishman possessed—that he should not in any way be injured by the act of another—if the dominant owner was not satisfied with the compensation which the tribunal had awarded him, he should have the right to appeal to the High Court.

The object of the foregoing was to simplify the method of procedure, and, in respecting existing rights, to obtain a settlement in less time and at less expense than at present.

Two or three suggestions had been made, to one of which the President had referred, viz. the desirability of appointing assessors to sit with the judge, practically in the way adopted in the Admiralty Court. That, no doubt, would, to a great extent, answer the purpose; but the difficulty would still remain that the parties would have to go to a court of law to obtain a decision, and he was afraid in that case there would be little improvement on the present system.

Another suggestion which had been made, and with

which Mr. Cates had fully dealt, was that the right of light and air should be derived only from the owner's land, which, until the Prescription Act was passed, was the custom in the City of London. But he thought that, in practice, it would now be found to be extremely inconvenient, and not only so, but that it would interfere with a great many of the sanitary laws which at the present time affected buildings. Take, for instance, an ordinary small London house, with a frontage of 16 feet or 18 feet, with back buildings which were usually built back to back, so that each derived light from the other's land of 12 feet or 13 feet, and instead it would only be possible to have about half.

The practice on the Crown Estates, and also on those of the Ecclesiastical Commissioners and many other large estates, was, to his mind, an exceedingly good one, and was a great argument in favour of leasehold tenure over freeholds. That would, of course, only apply to large estates, but so long as such clauses were inserted in leases, the lessee would know that he must obey those conditions, and would make provision accordingly. At the same time there were many opportunities of improving properties without interference with the adjoining ones.

Mr. G. M. Freeman, Q.C. (Associate), said that in the Paper two distinct questions were raised.

First of all, whether it would be well to adopt the principle of practically destroying the easement of light altogether, or, secondly, whether it would on the other hand be better to introduce radical reforms in the mode of dealing with the ascertainment and measurement of that right. He confessed that the first proposition seemed to him to be a rather too heroic remedy. He did not know why, if the easement of light were

abolished, all other easements should not disappear. He could not see that under the Prescription Act the easement of light stood in a much different position from an easement of common, an easement of way, or an easement of support. It seemed to him that it would be entirely revolutionising the rights under which an enormous amount of property throughout the country was bought and sold, and that if such a course were adopted as that proposed in Mr. Cates' communication, it would practically sweep away the fixity of the value of property, which might in fact be reduced from a large sum to almost nothing. The evil that would result would be infinitely greater than the advantage gained, for it would lead to more disputes between owners than at present arose. He could imagine a case of a chimney being carried up and up till it ultimately toppled down and did serious damage, and so encroachments on the rights to light might go on until, finally, the only tribunal to decide the matter would be a Criminal Court.

He agreed with the last speaker that it would interfere with the sanitary regulations of buildings. He could not imagine anything more instructive in that way than to watch the manner in which buildings were allowed to be carried up in the large towns of France, where they were jammed together back to back in narrow streets, and where, if there were any rights of light at all, they could not be of much value.

A word occurred in the early part of the President's Notes which was, he thought, the key-note to a good deal of the discussion which had taken place before the Societies now considering the question: it was observed that sometimes the exercise of the right of light was so used as to become a basis for blackmail, and if this were so it was of course exceedingly undesirable. One could

not acquire this right to ancient light over another man's property without his consent. A long period was allowed the servient owner in which to wake up to his rights, and, if he did not do so, it amounted, he thought, to something very like culpable negligence on his part in not employing a surveyor to look after his interests.

There was one initial amendment that should be made. He could not see why the ability to claim the right to light from somebody else should be obtainable in so much shorter a time than other easements. For instance, to establish a right of way took about double as long as to establish a right to light. Then as to the right to light, there was a condition which did not appear to be very generally appreciated. Though twenty years was talked of, if the light were interrupted for any single year the right ceased. The moment nineteen years and five minutes, say, had passed, the right could not be refused, for in order to destroy the dominant owner's right to light it must be obstructed for a period of twelve months during the twenty years. He thought it would be well that the acquisition of the right of light should be dependent on a period similar to that which conferred other rights.

Then came the very important question as to what tribunal was to deal with these matters. He observed that the President, in his Notes, said it was alleged "that "the tribunals, as now constituted, cannot take a just "view of the value of these rights, or of the relative "values of the respective properties and the several in- "terests therein." Then a little later on he said, "It is "admitted that though the law should take no notice of "trivial grievances, no sufficient reference is allowed to "the purposes, trivial or otherwise, for which dominant "lights have been used." Then, later, the President

asked, "Would it not be a reasonable regulation that no "rights of light should leave any power of interfering "with buildings on the opposite side of a public street "or way, whatever its width? Perhaps rights of light "under the Prescription Act might be so modified by "enactment that at any break of tenure they should be "extinguished."

He thought this was—if he might venture to say so—a slight misconception as to the actual position of the Courts at the present time.

He had always understood that two questions came under the consideration of the Courts in dealing with the remedies applicable to cases of ancient lights. There was, first of all, the relative importance and conditions of the two buildings. For instance, if he (the speaker) asserted his rights of ancient light as against a new building in the early stages of advancement, he would probably maintain his right and be able to protect himself. If, on the other hand, it was a question between his private house and The Surveyors' Institution, for instance, it would probably be said that the relative importance of the two was so different that he must give way and that The Surveyors' Institution might rise to six or eight storeys. In the same way, as to relative user of light, if he could prove that his business premises were absolutely useless if his light were interfered with, a good case could be made out for an injunction, and nobody could complain, but if it were proved that it amounted only to an interference which could be met by compensation then it had been his experience that the Courts would refuse to allow an important building to be interfered with or pulled down, and would give compensation in damages. He thought, therefore, that it was hardly accurate to say that this question was not so considered by the Courts.

Then he came to a point on which he agreed entirely with the President, that for purposes of this kind the Courts, as at present constituted, were not the best tribunal that could be imagined. To begin with, it was a considerable time before a case could be brought before the Court, whereas if it could, in its early stages, have been referred to a competent tribunal much injustice might have been avoided. One might have to alter or to set back a building, which would cost a great deal of money, and a great deal of waste might occur through operations being allowed to go on so long before any remedy was obtained for the injury that was being suffered. Then there was the expense of employing eminent gentlemen to make plans, which, again, had to be explained by perhaps less expensive counsel. Again, even the mental qualities of judges sometimes differed.

He saw no reason why a tribunal dealing with party walls should not equally well deal with the rights to light. He thought it would be an advantage that a system should apply to the whole country under which each man could appoint his own surveyor. Let them agree to nominate an arbitrator and let him settle the whole matter as he did compensation for injury. He did not see any more difficulty in determining whether a man had his light affected, and, if so, what compensation should be paid to him, than in determining the hundred-and-one different cases of injury and prospective value that came before surveyors every day.

The whole thing could perhaps be settled in a month while the facts were fresh, and thus justice could be done. No doubt the tribunal that had worked so well under the Building Act would be a good one, but it would have the disadvantage that the litigants must come to the

tribunal from different parts of the country, or else the tribunal must go wandering about after the litigants. He thought it would be better that such questions should be referred to an umpire to be appointed by the two arbitrators, for he must say, after a pretty wide experience, that he found, in ninety-nine cases out of a hundred, the award of such an umpire really gave substantial satisfaction to all parties. Now and then there were cases in which it might not be quite satisfactory, and clients were a little more exigent than they should be, but most professional men would agree that the umpire had generally done substantial justice.

He did not think that the system of having assessors to sit with the Courts would prove to be practicable, or that it could be said to work well in the only Court where it now applied. He very much doubted whether it would facilitate business or shorten proceedings, while it stood to reason that it would increase the cost.

Professor T. Roger Smith (Visitor) said the subject was one which had a great claim upon the careful consideration of architects and surveyors, both individually and in their corporate capacity. The existence of rights of light often seriously affected the possibility of erecting many buildings which, from private and public points of view, it was desirable to leave unrestricted as to height and design. There were a great many sites that could be usefully occupied, but which were now only partly occupied, or not properly occupied, because of the great difficulty of dealing with ancient lights, and the question presented itself whether, in most cases, the matter could not be reduced to a question of money compensation. He believed that in

nearly every case a money value could be assigned to the dominant owner's right, and he thought that whatever modifications were made in the law they should include the possibility in almost all cases of arriving at a money compensation rather than making an injunction necessary.

Moreover, he felt sure that if the money compensation were assessed after the buildings were erected there were a great many instances in which it would not be found to be very large. He remembered, not many years ago, a case of a newly erected wall which was supposed to have obstructed ancient lights and which no doubt went higher than a former wall on the same site. He inspected the room affected, which certainly had very little light, and remarked to the occupier that it was very dark, but was informed that it had been a deal darker before the wall was erected, the fact being that although the wall was carried higher it was built of hard bricks which gave a reflected light, better than the former grey semi-darkness.

He thought there could be no doubt that whatever alteration was to be made it would in some way have to be made by legislation.

He was exceedingly glad to hear from the last speaker that he viewed with favour the idea of in some way introducing a system of adjustment not dissimilar from that which now obtained with regard to London party-walls. But he hoped no attempt would be made to deal with the matter by an amendment of the Building Act. He contended that it must be effected by some quite distinct measure, and that the Legislature might fairly be asked to deal promptly with the question of rights of light. He was sure that all would agree in feeling that whatever legal rights now existed must not be dis-

turbed, and that it was not just to sweep away the rights which in many cases added largely to the value of the premises to which they attached, and which could not be disturbed without seriously prejudicing existing arrangements. It seemed possible that the acquisition of such rights in future would be either entirely prevented or restricted by such limitations as would make them less binding than they now were. That was one of the points which would have to be considered. Times had altered, and it was felt by many interested in building that some change was necessary.

Mr. Howard Chatfeild Clarke (Fellow) said that on such a difficult subject he felt some diffidence in saying even a word; but he must express his agreement with Mr. Freeman's argument that any attempt to technically upset the whole law of the rights of light would deal with very large and complicated interests. It appeared to him that the difficulties in the course of professional practice arose not so much from the law itself as from the procedure under that law. The great difficulty where a light and air case had to be dealt with was the question of time, especially in large estates in towns. These cases were blocked by the law in regard to procedure, because if one owner obtained an injunction against another the latter was practically, and to all intents and purposes, in his hands, and nothing was left but to settle the case for one's client on the best terms obtainable, which might perhaps be extremely unfair and unreasonable. Therefore he would rather suggest that a scheme should be aimed at whereby the present law could be set in motion by the parties in a simpler and more expeditious manner. He thought that if a

tribunal, similar to the tribunal of appeal, were empowered to deal with such questions no very great practical difficulty would arise. Both the plaintiff and defendant would feel that that there were at least two professional men well up in technicalities of the subject to whom their case had been fairly put, either by counsel or solicitor or by an architect, acting with a third gentleman, who had large knowledge of the law on these matters. If the case were a very heavy one, he saw no harm, if either side wished it or were dissatisfied with the decision, in their still having the power to appeal to a judge of the High Court, but he believed they would think very seriously before such a course was adopted, and ninety-nine cases out of a hundred would be settled by the tribunal itself, and, as Mr. Freeman had said, it would be found that justice between the parties would be done.

The difficulty in these cases, when they were brought before the Court, was to have them fully and clearly explained by the learned barrister to the learned judge; for, after all, the technical meaning of the sections and diagrams with which surveyors were perfectly familiar, must appear, in many cases, extremely complicated to counsel, and he could imagine very well that when a brief was handed to a barrister, already full of briefs in other matters, it was not easy for him to grasp the whole question. Another difficulty was that a judge had not the time, though he thought he had the power, to investigate the matter by an inspection of the premises; and even when these questions were before the Courts, they often, and he thought very rightly, refused to settle the case. He was in a heavy case lately where the judge—although the plaintiff for whom he (the speaker) was acting, distinctly wished the decision of the Court—

found that he had power to have a report made to him, and insisted on using that power and referred the matter to his friend, the last speaker.

That was a case involving great expense, but in the end the report of Professor Roger Smith practically settled the action. Therefore, if it were possible under the law of the land to take cases quickly to such a tribunal as was already set up to decide other similar matters, it seemed to him that a very desirable step would have been taken to simplify the procedure and to ensure equitable results.

Mr. Philip E. Pilditch (Fellow) said that while agreeing in a great measure with the conclusions at which Mr. Freeman had arrived, and with which he understood Mr. Clarke to be mainly in acquiescence, he could not quite follow the former in thinking that the judges had recently taken up the attitude of showing a disinclination to support claims when only of a slight character. There had been, he thought, within the last few years, a greatly increasing tendency among judges to give much less attention to the old maxim, *De minimis non curat lex*, than they used to. He remembered that it was formerly much more difficult to get the Court to take a strong view in favour of the dominant tenant than was now the case. It was, then, for instance, very difficult to get a judge to seriously consider anything like a lateral light case, but during the last few years, and especially the last few months, there had been several cases in which the judges had taken what appeared to him to be very strong and advanced views on the subject, and granted injunctions or heavy damages for interferences which were practically slight.

The most important recent appeal case, that of *Brown* v. *Collings*, showed that the judges were taking stronger views of the dominant tenant's rights than formerly, and from that fact had arisen the present movement in favour of an alteration of the law. He could not but agree with Mr. Freeman that the remedy for the present state of affairs, under which it was no doubt possible for something in the nature of black-mailing to exist, was not to be found in any drastic alterations of the law such as the entire abrogation of the Prescription Act of 1832, but in establishing some mode of procedure by which those questions could be settled with less reliance upon technicalities and by requiring clearer proof of material damage.

He agreed with Mr. Freeman that some such method of settling light and air cases as that under which party-wall cases were now settled, or an extension of the powers of the present Tribunal of Appeal to light and air cases, would very well meet the occasion.

With regard to practically doing away with the Prescription Act, as was suggested by some, it appeared to him that this remedy, if it were to affect existing rights, was very much too drastic. If it were not to interfere with existing rights, and was only meant to apply to the acquisition of rights in the future, he should like to point out what, no doubt, was familiar to all present, that lights could at the present moment be readily protected in the usual way by putting up an obstruction, or by agreeing with the neighbour who was endeavouring to acquire rights to lights, as was often done. He failed to see why, if some owners of property saw fit to make excessive claims before the Courts, all other owners of property of a similar character should be made to suffer. It was not because a man made an

excessive claim that he was necessarily able to enforce that claim. The fault lay not so much with the man who made the claim, but with the Court which allowed it.

Mr. C. H. Bedells (Fellow) said he thought that the discussion which took place when the matter was before the Royal Institute of British Architects showed that the feeling there was generally in favour of those who wanted to erect buildings, but he thought that the trend of the speeches on the present occasion was rather towards a recognition of existing rights, and in favour of the view that those rights must be, within certain reasonable limits, maintained. He thought that little success would be likely to result from pressing this matter to the extent of the entire abrogation of rights of light, either present or future, and that it would be a mistake to urge any scheme on that basis on the Joint Committee which would have to consider this matter. But he also thought there was very legitimate scope for suggestions with a view to remedying the present procedure in dealing with lights already in existence, and also for the simplification of questions which arose as to the acquisition of light. As to the latter point, Mr. Freeman made a suggestion that the period for the acquisition of prescriptive rights to light should be extended, but he, the speaker, ventured to think that a suggestion on another line might more reasonably meet the case. Many Members present knew the great difficulty which often arose when it was sought to prevent the acquisition of an adverse right. It was true, as Mr. Pilditch said, that one could proceed in the usual way by obstructing the light, but there were often difficulties in the way of doing so. Even if the

district surveyor did not object to the erection of a screen in front of a window, to erect such a screen might possibly do more damage to a man's own premises than his gain would compensate him for. It seemed to him that interruption for a specified period in order to prevent the acquisition of an adverse easement was, at best, a clumsy expedient. Why should not a registered notice from one man to another be sufficient and as effective as the keeping up of a screen for 12 months? Why should not that sufficiently negative the idea of a presumed grant, which was the basis upon which the law went before the Prescription Act came into operation? It seemed to him that if a man had a window looking over a neighbour's land and which meant that he would gain an adverse right if he were not stopped in time, it ought to be enough to give formal notice of dissent from the acquisition of any rights over the land, and that the registration of such a notice ought to be effective. That would, he thought, to a large extent, simplify procedure in the future, and reduce the number of easements.

He agreed with Mr. Freeman that, as to existing rights of light, to suggest a confiscation of such rights was not within the region of practical politics. He thought it would be much better, as had been suggested, to arrange for an improved tribunal which, at less expense and delay, would deal with these matters. He thought while the existing tribunals had to decide it would help very much if the judges were empowered to exercise a discretion with regard to damages or injunction. It was true that years ago judges used to exercise that discretion, but they had since distinctly stated in many judgments that they seriously doubted whether they had the right, when infringement was

clearly proved, to grant anything but an injunction. How could they say in the face of rights which were by statute declared indefeasible that a man must accept a certain sum of money instead of the strict maintenance of those rights? There used to be a custom of the Courts—he understood something like a working rule—which did not exist now, that when damage could be shown to a man's ancient lights, the Courts assessed the damages, and where these would exceed a certain amount (he thought the figure was about £200) an injunction would be granted, otherwise damages were given. But that practice did not obtain now, and he thought if judges could be assisted by any Act which would allow them discretion as to awarding damages instead of granting an injunction in cases where there was a great disparity between the damage which would be done to the dominant owner, and the damage which the servient owner would sustain if his building were limited by injunction, that would be a step in the right direction. To his mind the most useful suggestion was that questions of light should be dealt with by means of a procedure analogous to that which now so well dealt with party-wall questions. He did not see why that procedure should not extend to cases of contemplated buildings which might be considered to threaten a neighbour's rights.

If such a suggestion were found practicable he thought there was one point which any Committee appointed for this purpose would have to carefully consider. The Building Act determined 10 feet as the distance within which one building going below the foundations of an adjoining building might, *primâ facie*, be presumed to injure such building and require a notice. Here the question is what angle of contemplated obstruction should

be suggested as, *primâ facie*, necessitating the service of a notice upon adjoining owners?

With regard to the third surveyor procedure and the question of damage, it would be well to suggest that the matter to be determined by the three surveyors should be limited, first, to what should be done by the building owner, and secondly, whether any accommodation could be made to meet the reasonable views of the adjoining owner in the dominant tenement. He thought that it was doubtful whether any power of awarding damages or compensation should be left with the three surveyors, because with the question of damage other questions would arise with which the tribunal would hardly be competent to deal, such, for instance, as to who would be the person entitled to receive the money and as to title.

He would, therefore, venture to urge that the preliminary sifting, as it were, of questions of light and air should be arranged by a modified reference to three surveyors. Also that, as suggested, there should be an appeal in cases of real importance, and for this purpose he could not conceive any better tribunal than the present Tribunal of Appeal. He lived in the hope that the scope of that tribunal under the London Buildings Act would be extended, and therefore he would not suggest that it should go exactly to that tribunal, but that a tribunal of appeal should be constituted on a similar basis.

Mr. A. B. Hudson (Fellow) said that although the discussion of the interesting subject before the Meeting would prove of great use, he thought the real business of the evening was to sanction the appointment of a Com-

mittee by the Council to act with the Committee of the Royal Institute, and he would propose that the Council be requested to appoint such a Committee.

The PRESIDENT said Mr. Hudson had expressed what was the wish of the Council, that it should be placed in their hands to appoint a Committee, with power to meet a Committee of the Royal Institute of British Architects, to take evidence and prepare a report.

Mr. HUDSON said: Turning to the discussion, he thought the suggestion for the settlement of any question of light and air in a manner similar to that adopted in the case of party-walls was an eminently practical one, but with regard to the two surveyors and the umpire, the only question they could determine would be the height of the new building, or whether any alteration could be made in the dominant building to suit the circumstances. Such a tribunal could not deal with trade interests or compensation in the absence of technical knowledge of the different businesses that might occupy the premises, necessary in order to determine the question of compensation. Both the President's Notes and Mr. Cates' Communication referred to 20 years as the time by which a dominant right was acquired. That no doubt was the legal theory, but only 19 years' user was necessary in order to obtain a dominant right of light. To prevent this a window would have to be obstructed for a full period of 12 months during 20 years.

Mr. J. H. SABIN (Professional Associate of Council) said it seemed to him that the proposition of Mr. Bedells

with reference to a registered notice being sufficient, was a very valuable one, and if the legislature could not be induced to adopt the suggestion in all cases, it might at least be prepared to do so in cases where a reversioner's interest was in danger—where a reversioner might not have the power to go on the premises to erect the necessary screen. Cases had come under his notice where a reversioner had sustained damage in consequence of the neglect of his lessee, while the former had no power whatever to go on the premises to obstruct the encroachment, and where the lessee might, by connivance with the adjoining owner, give such owner an adverse right to light.

The PRESIDENT, in summing up the discussion, said, that so far as he could gather, those who had spoken at the Meeting did not take the strong view adopted in the discussion at the Royal Institute of British Architects as to the position of dominant lights. The word "confiscation" seemed to be very terrible in the ears of some of the speakers. They did not seem to appreciate the fact that if it was wished to confiscate rights of light, it could only be because those rights of light were themselves "stolen goods." He thought the expressions "stolen goods" and "confiscation" should be set against one another, and that they need not be afraid of confiscating "stolen goods." But the general impression appeared to be that there would be great difficulty in getting the legislature to alter the basis on which dominant lights were acquired, and would continue to be acquired, but that they would have some chance of obtaining a revised mode of dealing with these rights when they came to be exercised and had reference to

new buildings. For his own part, he did not understand, why, if two, plus one, surveyors could deal with all the questions with regard to construction in the connection of one building with another, the third surveyor, and the two also, should not be able to deal with any question of value arising in a rearrangement of lights and the intricate relations of properties, even if the present owner were a lessee.

His own impression was that the three surveyors together could as well deal with those questions as with the questions of enlarging a window or whether a wall might be carried to a certain height, or was to be faced with glazed bricks. All those were points which any Committee dealing with the subject would consider, he presumed, *seriatim*, very much in the order in which he had quoted the suggestions made at the meetings of the Royal Institute. He did not suppose it would be possible to get any alteration of the law, even to the extent of providing for settlement by an arbitrator in these matters, instead of taking them to the Courts, unless the Committee was prepared to give some very strong reason to the public and to the legislature, and therefore one object which the Committee must keep prominently in view would be to point out the ill effects of the existing system, and he thought they might fairly inquire into the laws of other countries with a view to suggesting improved procedure.

Having done that, his impression was that a Joint Committee of the Royal Institute and The Institution, with such legal assistance as they might be able, and ought to be able, to obtain, would be of service in leading to the establishment of the law of ancient lights on a better basis.

A suggestion had been made, and he believed it would

fall in with the views of the Council, that they should appoint three gentlemen to meet those already nominated by the Royal Institute of British Architects as mentioned in the following letter received from the Secretary of that body.

"ROYAL INSTITUTE OF BRITISH ARCHITECTS.

"*5th May*, 1900.

"DEAR SIR,

"My Council have the pleasure to invite the co-operation of The Surveyors' Institution in an effort to obtain an amendment of the law relating to Ancient Lights, thus carrying out a resolution of the general body of the Royal Institute passed on the 9th April, viz. :—

'That this meeting considers an alteration in the law of Ancient 'Lights to be urgently needed, and requests the Council to put itself 'into communication with The Surveyors' Institution without delay, 'with a view to the co-operation of that body in taking such steps as 'may be necessary to secure an amendment.'

"My Council invite The Surveyors' Institution to appoint three of their Members to meet a similar number of Members of this Institute whom my Council have already appointed, who may deal with the question as it is suggested in the above quoted resolution. Further, my Council would be glad if this Joint Committee of six would add to their numbers one or more of the legal Members belonging to either body.

"Mr. Douglass Mathews and Professor Roger Smith have consented to act on the Committee of the Royal Institute, and in all probability Mr. E. A. Gruning (Vice-President) will be the third.

"I am, dear Sir,

"Yours faithfully,

"W. J. LOCKE,

"*Secretary.*"

"The Secretary of

"The Surveyors' Institution."

A vote of thanks to the President for the preparation of his Notes having been put and carried unanimously, the Meeting then adjourned.

Sir GEORGE LEACH, K.C.B. (Honorary Member), exhibited a small level, recently made from his own design, which he had found so convenient for various purposes for which a level was required, that he thought it might be useful to some of the Members of The Institution. It would be seen that it was very small and light, fitting into a leather case about 7½ inches long; very portable, simple to work, and quite sufficiently accurate for all practical purposes. He had levelled with it for two or three miles to within a couple of inches. The levelling staff, rather over 8 feet long (folding in half), was equally light and handy.

The construction of the level was quite novel—a small telescope about 7 inches long, by an inch in diameter, with a 3½-inch spirit tube on the top, was pivotted off its centre towards the object end, on a thin brass circular plate 3 inches in diameter, with a pendulum below the plate screwed into the end of the pivot to keep the instrument level laterally, and the cross hair horizontal. The level itself was actuated by a small fine-threaded screw directly under the telescope, working freely on the circular plate. The object of pivotting the telescope off its centre was to throw the greater part of its weight on to this screw, so as to ensure its being always in contact with the plate. The end of the pivot being spherical, and the plate circular, the telescope and level could be revolved in any direction. The telescope was sufficiently powerful to read the staff clearly at from 2 to 2½ chains distance. Adjusting screws admitted the level being put into accurate adjustment. A collar on the pendulum, larger than the hole in the plate into which the telescope was pivotted, prevented the level from being jerked off the plate when being shifted from station to station. The level was mounted on an ordinary

4-fold camera stand, which had been found to be very firm even in windy weather.

By putting the small actuating screw into proper position when setting up the instrument, the circular plate could readily be so nearly levelled that a very small movement of the screw, after the telescope was set on the staff, was sufficient to bring the bubble to its level position.

The level was made by Messrs. Stanley, of Great Turnstile, Holborn, but of course could be made by any other instrument maker, to whom Sir George Leach would give every facility.

The level was inspected with interest by many of the Members present, and was left with the Secretary for examination by any others who might feel interested in it.

Paper 258.
No. 416.

EXTRAS AND OMISSIONS IN BUILDING CONTRACTS.

By E. H. BLAKE, Fellow.

Read at the Ordinary General Meeting of The Surveyors' Institution, *on Monday, May 21st*, 1900.

Thomas Miller Rickman (President) in the Chair.

Building contracts have been described as "the most "complicated and most difficult, and in many respects "the most unjust contracts that commercial enterprise "has ever been able to achieve."

Happily, these words are not so true to-day as when spoken by Professor Kerr at a meeting of the Members of this Institution some 12 or 14 years ago. A contract to erect a building can never be a simple one. Being arranged between two parties by a person who is usually no party to the contract, and yet has large powers under it, and being subject to a whole schedule of conditions, a building contract cannot but be a most complicated and difficult matter. That such contracts are in many respects unjust is a statement which may be at first sight open to question.

The contract may be unjust to either the building owner or the builder. The injustice to the former usually arises in the following way: Responsibilities are sometimes thrown on the builder when estimating, by leaving to his discretion some matter of doubtful yet ascertainable value; a matter which a little investigation

on the part of those arranging the contract would free from any doubt or uncertainty whatever, and thus enable the competing builders to price it at fair value instead of allowing a good margin to cover such contingency. Every point on which there is any doubt, and every matter as to which there may be the slightest misunderstanding during the execution of the contract, should, in justice to all parties, be thoroughly threshed out before the contract is signed.

Another occasional source of injustice, if indeed it can be called an injustice, is the impracticability of the plans and specifications. The law on this point seems hard on the builder, requiring him in some cases to satisfy himself as to the possibility of completing the work in the manner described by the architect or engineer. He must either, therefore, possess technical knowledge superior to that of the latter, insist on the quantities being part of the contract, and contract to do only the work therein contained, or refuse to bind himself in a contract which contains a clause requiring him "to erect and complete the structure" or "to erect a "complete building."

It may be said that there are few architects or engineers who would refuse to acknowledge the responsibility for their oversight or inability, but two or three important cases which can be brought against such an assertion will be referred to later on.

Parties to a building contract are liable to many risks and responsibilities. The building owner or his agent has to consider, among many other things, the following possibilities :—

Excess of cost over amount of contract.

Failure of the builder, with the attendant inconvenience.

Delay in completion through weather, strikes, &c. often involving considerable pecuniary losses.

On the other hand, among the possibilities which the builder has to consider are—

Strikes, with changes in the price and efficiency of labour.

Alterations in the price of materials.

Failure of the building owner.

Accidents and liability under the Workmen's Compensation Act.

Impracticable plans.

Inaccurate quantities.

Penalties for non-completion to time.

A reasonable contract is one which reduces the element of risk to either party to the smallest possible amount, and places on the right shoulders all such liabilities as those mentioned above.

Of all the contingencies attendant on building contracts the matter of extras and omissions is one of the most difficult in the final settlement. The knowledge of the building owner or employer in reference to the details of the work is, in almost every case, limited. A very small percentage of clients thoroughly understand the technicalities of plans and specifications. It is often found that the client would have had this or that rather different, had he fully understood the meaning of the drawings and descriptions. The position of the architect should be, therefore, and generally is, that of adviser and confidant, rather than that of servant to the employer. He becomes the agent of the employer in the fullest sense of the word, and it is customary for the contract to give him control over the works with the power of giving orders binding his principal as to liability for payment. Contracts occasionally curtail the customary

powers of the architect. It should be noted, however, that there is legally no authority *implied* to him in reference to the ordering of extra works. As almost all contracts confer large powers on them, it follows naturally that architects are, as a body, men of considerable responsibility, who can be trusted to act with the utmost impartiality between the parties to the contract.

The necessity for very complete and stringent conditions of contract cannot be too strongly urged. The position of architects under contracts is not always satisfactory. There is frequently a lack of confidence between the architect and builder. No matter how fair-minded the architect may be, he is always liable to be regarded as having more or less bias towards his employer, the building owner. It has been said that when confronted with two alternatives, one that of submitting to the employer a heavy bill of extras (sometimes to some extent attributable to the architect's negligence), or on the other hand that of pleasing his employer at the builder's expense by cutting down the bill of extras, an architect is apt to be found very human. That these remarks do not apply to the great majority of contracts is beyond doubt, but as the temptation sometimes exists, and there may be men who cannot resist it, the conditions of contract should be so framed as to remove such possibilities. They should provide that none but work done on written orders signed by the architect should be recognised as extra work, and the contractor's priced bill of quantities, or a verified copy of the same, should be deposited for use as a schedule in valuing all extras or omissions.

Every point on which it is possible that a misunderstanding may arise should be carefully considered and thoroughly threshed out before the signing of the con-

tract. This careful consideration is rapidly becoming a matter for the surveyor rather than for the architect Such a practice cannot be too strongly recommended. Only in the process of taking off the quantities can all the points of uncertainty be eliminated.

Quantities, where taken off by the architect, are often prepared in a more or less haphazard way. The practice of quantity surveying is not one to be dabbled in. There is no matter of opinion about the quantity of labour and materials in a certain piece of work. Either there is so much of this or that or there is not. Therefore either the work is correct or it is incorrect. Trifling inaccuracies frequently result from insufficient description or omission of detailed labours.

The question as to whether the quantity surveyor is guilty of bad faith with the builder and building owner in the case of inaccurate quantities depends very much on the position and mode of appointment of the quantity surveyor. It would be obviously unjust to say he was liable under suchcircumstances as those in the well-known case of *Priestly and another* v. *Stone*,* where the quantities were taken out from unfinished drawings and delivered to the architect, who afterwards materially altered the drawings, wrote the specification apparently regardless of the bill of quantities, and submitted the drawings, specification, and original bill of quantities as a basis of tendering. It was held by the court that there was nothing in the nature of a contract between the quantity surveyor and the builder, and there could therefore be no liability. In the course of the judgment in this case Mr. Justice Stephen recommended the quantities being made part of the contract. Notwithstanding the decision in *Priestly and*

* Reports of this case and many of those subsequently quoted will be found in the *Professional Notes.*

another v. *Stone*, it is still customary to consider the quantity surveyor to some extent morally liable to the builder for inaccuracies. On the other hand, the question arises: Is the building owner justified in receiving work for which he has not paid? For if the quantities are insufficient in some particular, the contract price will also be insufficient.

To ensure accuracy in bills of quantities, they should be prepared by a man of recognised ability as a quantity surveyor and made part of the contract. Their accuracy is also dependent on the time allowed for their preparation and the completeness of the drawings and specification from which they are prepared.

A process which cannot be too strongly condemned as unfair to all parties, is that of issuing bills of quantities for the purpose of tendering, but repudiating any responsibility for their accuracy, saying that a few days or a week will be allowed the contractor for the purpose of verifying them. Anyone acquainted with quantity surveying knows that this means beginning *de novo*. It is therefore unfair to the builder to expect him to do in a few days what has most probably taken the architect's assistants as many weeks, and it is unfair to the employer, because in such a case the builder adjusts matters in his own way by adding a heavy percentage for contingencies. This practice is happily dying out, chiefly owing to the difficulty of getting builders to tender on such conditions.

The employer should not be kept in the dark about any part of the proceedings. Let the question of quantities and the employment of the quantity surveyor be brought before him and the latter's position be recognised. Let the employer see that the accuracy of the quantities should be guaranteed and that they should be

made part of the contract. On the other hand the builder should be given clearly to understand the position. The work of final settlement of the accounts is thus greatly facilitated and can be carried out on a more equitable basis.

Incidentially I may mention that it has been repeatedly urged that the quantities should be prepared by an independent person. I would particularly direct attention to a case which came before the Lord Chief Justice a short time ago (*Torromé* v. *Scott*) in regard to architect's fees. A strong opinion was expressed by the L.C.J. to the effect that the quantities should be prepared by an entirely independent person.

It cannot be too strongly emphasised that the essence of a just and ultimately satisfactory contract is exchange, in strict equity, of cash for kind.

There should be no confusion as to the meaning of the term "extras." They can be defined as all works not included in the contract, for which instructions have been given.

Omissions may arise when the quantities form part of the contract, or by agreement between the parties when the quantities do not form part of the contract. In the latter case there ought always to be a clear understanding at the time that the value of the omitted work will be claimed by the architect in the final settlement.

Extras are usually brought about by the change of mind of the client, or from his not knowing whether the plans and specification really represented what he required, or from incompetence or want of foresight on the part of the architect. They may also arise from unforeseeable circumstances of site, or in some cases from impracticable plans.

A contract for a complete building includes all work indispensably necessary to the completion of building, but where the quantities form part of the contract there may arise extras, though indispensably necessary. For instance, items due to exigencies of site may be omitted from the quantities because not previously known to be necessary. Where the quantities do not form part of the contract, works indispensably necessary to complete do not come under the head of extras, even though they be not mentioned in the contract, shown on the drawings, or described in the specification.

In support of this I would briefly mention the well-known cases of *Sharpe* v. *San Paulo Railway*, *Thorn* v. *Corporation of London*, and *Bottoms* v. *Corporation of York*.

In the first-mentioned case, Sharpe undertook the making of a railway between two points. Finding the plans to be impracticable, as given him by the engineer to the railway company, he asked the engineer to alter them. This the latter did, entailing a considerable amount of additional work, for which the plaintiff claimed payment. It was held that by the contract he undertook to make a railway between two points, and in doing so he had done no more than he had contracted to do, notwithstanding the fact that he had to take a totally different course from that for which he had contracted.

The second case, *Thorn* v. *Corporation of London*, is somewhat similar. It arose out of the construction of Blackfriars Bridge. The contract provided for building the piers by the aid of a special form of caisson, which was minutely described. This proposed method of construction was found impracticable, and though the builder was thereby put to considerably greater expense,

he was held not to be entitled to extra payment since he had undertaken to erect the bridge complete.

The case of *Bottoms* v. *Corporation of York* appears perhaps more unfair than the two already cited. The plaintiff contracted to construct some brick sewers, but had not previously acquainted himself with the nature of the subsoil. He found that the design of the engineer to the corporation was quite impracticable, for after construction the sewer was again and again crushed in, only to be reconstructed by the contractor. Payment was refused on the ground of non-completion. The Court of Appeal held that although the Corporation of York had treated the plaintiff very unfairly in the matter, they were under no obligation to pay until the contract was completed, which according to the design in the contract was a matter of impossibility.

Yet another example is furnished by the case of *Tharsis Sulphur Company* v. *McElroy,* where girders shown on the drawings were much too weak for their purpose.

Many other instances might be given, but the effect of all is similar. Again and again has it been held by the courts that plans, specifications, &c., are in the nature of information supplied to the builder for the purpose of enabling him to tender, but that there is no *implied* warranty either of their accuracy or practicability.

It is unreasonable to expect the contractor to possess technical knowledge superior to that of the engineer or architect. Possibly, too, some professional gentlemen would hardly like to be taught by a contractor.

These cases, therefore, seem to point the moral not to enter into such contracts, rather than to increase respect for the law. They indicate that the law requires amending, and that contracts must be meanwhile made

to provide against legal defects. This is best done by making the quantities the *basis* of the contract. The contractor will then be liable to do only the work for which he has tendered a price, and the employer will only be entitled to receive value for which he has agreed to pay. I have already stated that a contract for a complete work includes everything indispensably necessary to the completion thereof. I would add that it is immaterial that such works are omitted from the specification or drawings, or the drawings are impracticable, or that certain things are understated or miscalculated. It is also immaterial that such works are omitted from the quantities, whether they form part of the contract or not.

This is amply proved by the decisions in the following cases :—

Williams v. *Fitzmaurice.*
Sharpe v. *San Paulo Railway.*
Thorn v. *Corporation of London.*
The Hydraulic Engineering Company v. *Spencer.*
Scrivener v. *Pask.*
Coker v. *Young.*
Kimberley v. *Dick.*

While dealing with the subject of impracticable plans it should be noted that when the quantities are not part of the contract, authority given to the architect as to the ordering of extras does not give him power to order, as extras, work indispensably necessary to make such plans practicable.

Should an architect order as an extra, or certify for as such, anything indispensably necessary to the contract, unless such certificate is a final and conclusive one, neither the employer nor the architect is liable for pay-

ment to the builder, who should know that the matter was within the meaning of the contract and that he would have been liable for breach of contract if it were omitted.

Should the architect have power under the contract to interpret the meaning of all points within the same, it is probable that in case of impracticability his proposed method of completion might be questioned by the builder. In such a case, if the contract contains an arbitration clause, it will generally be a matter for reference to determine whether or not such proposed method of completion is within the contract. If the builder contracts to do an impossibility, he alone is responsible, and he must, entirely at his own expense, find a satisfactory way out of the difficulty. Some forms of contract give the architect sole power over such points. If the contractor has no confidence in the architect he should avoid any such contract.

The position of an architect with regard to extras is practically this: he must, if not authorised to order extras on behalf of the employer, obtain the latter's instructions in reference to any additional work which may be contemplated before sanctioning its commencement. If the contract provides that no extra work is to be undertaken without the architect's written order, such order should be given before the work is commenced, and no certificate for payment should be issued in regard to any extra work executed without such written orders. Further, where the quantities are not part of the contract he must not incur liability on the part of the employer by ordering as extras, or certifying for payment as extras, work which is indispensably necessary to completion.

In reference to the architect's authority to order

extras, the question of custom arises. Legally, there is apparently no implied authority to an architect as to the ordering of extras. He must be expressly authorised to give instructions on such matters, either verbally or in writing, and the question of his authority is one for a jury. It is, however, unusual to see a clause in a building contract expressly giving authority to the architect in reference to the ordering of extra work, although he is generally given some power to determine what is and what is not extra to the contract. The almost universal custom is, I think, to regard the architect as the employer's agent in the fullest sense of the word. Under any ordinary form of contract in which there in no express stipulation as to the extent of the architect's authority, a builder would rarely be found to question the powers of the architect on this matter.

The next point with which I would deal is that of written orders for extras. The law and practice on this matter is very clear. Though the conditions of contract require all orders for extras and omissions to be in writing signed by the architect, there is yet a way in which the builder can obtain payment for work executed in direct opposition to such a condition or on the verbal orders of the architect. The contract may contain a clause giving the architect the power to grant a final and conclusive certificate, and if he includes in such certificate amounts in respect of extra work unauthorised in the manner agreed upon, the employer is bound to pay.

Under any other circumstances the employer is not liable in the absence of written and signed orders as required by the conditions of contract. The mere verbal promise on the part of the employer or his agent to pay for any extra work, or to adjust matters by a cutting-down process in other directions, is of no value whatever.

Again, if the contract defines extras and omissions as only such additional or varied work as may be authorised by the *architect* in writing, any extra work ordered by the *employer*, either verbally or in writing, must be regarded as in the nature of a separate matter quite outside the contract. Apart from the legal aspect of the matter, there can be no doubt that to avoid complications, all orders should be transmitted to the builder through the medium of the architect.

According to the judgment in the case of *Russell* v. *Sa Da Bandeira*, a builder can claim payment for additional work, without written orders for extras, when such are necessary, provided that he can prove the extra work to be independent of the contract. Such a point would generally be a matter for reference to an arbitrator, who would decide whether the work was, or was not, independent of the contract.

A point of no small importance was settled by the case of *The Tharsis Sulphur Company* v. *McElroy*. It was held that even where interim certificates described and included items of additional work, such certificates did not dispense with the necessity for written orders where such were a condition precedent to payment.

It may be noted, incidentally, that the measuring surveyor has no authority in respect of performance under the contract. He has in all cases to deal only with facts and the matters forming the basis of the contract, as placed before him by the architect.

The granting of a final and conclusive certificate by the architect is a matter requiring great care. Even though the architect may certify as extra, work that has never been done, or which was indispensably necessary to the completion of the contract, the employer has no remedy and must pay, unless he can prove negligence

on the part of the architect or collusion and fraud on the part of the architect and builder. The equity of this is open to question. It would appear to give the architect too full a power to find in his own favour on all questions involving negligence on his part. The vesting of sole authority in the architect under the final certificate clause alone, is liable to be sometimes very inequitable to the builder, since the architect has the power of determining what are, and what are not, extras to the contract.

An interesting case bearing on this point is that of *Rogers* v. *James*. This was a case in which an architect sued the building owner for the balance of his account for services rendered in connection with the building of a house. The building owner counterclaimed for negligence in supervision of the work and proved that certain concrete works were omitted from the foundations, and that various other items of labour and materials were not supplied. The counterclaim for negligence was met by a denial, and plaintiff stated that he had made a deduction in respect of these omitted works when giving his final certificate. A clause in the conditions of contract provided that "the decision of the "architect with respect to the amount, state, and con- "dition of the works actually executed, and also in "respect of any and every question that may arise con- "cerning the construction of the present contract or the "plans and specification, or the execution of the works "hereby contracted for or in anywise relating thereto, "shall be final and without appeal." The jury found that the architect was negligent, and had not awarded sufficient in respect of the omissions. In confirming judgment, the Master of the Rolls said that "the certifi- "cate was final as between the builder and building

" owner. Any question between the building owner and " the architect would not be decided by it. As between " the builder and the building owner the architect had " awarded a sum which the building owner could not " question. As against the architect the building owner " could question it." In concurring with the Master of the Rolls, Lord Justice Lopes remarked that " such a " clause gave the architect no jurisdiction to decide any " question of negligence as between himself and the " building owner, and the building owner could bring an " action for negligence against the architect."

There are many cases arising out of the final certificate clause, nearly all pointing to an unreasonable attitude of blind confidence on the part of the builder towards the architect. A notable example is furnished by the case of *Tullis* v. *Jacson and others*, which had reference to a clause providing that " the architect's " certificate shall be final and binding, and shall not be " set aside for reason of any charge of fraud, &c." Such a clause was held by Mr. Justice Chitty to be quite good and valid. It would indeed be difficult to find much sympathy for a contractor who bound himself by such an unreasonable condition.

The next point to which I would devote attention is the question of time during which extras may be ordered. To come under the heading of extras to a contract, any additional work must be done under orders issued during the execution of the contract. All work executed under orders issued after the completion of the contract must be regarded as the matter of a fresh transaction altogether, and cannot be dealt with as extras to the former contract. The whole of the conditions governing the previous works are void in respect of this, which must be paid for at fair value, and is not

subject to the architect's valuation. In case of dispute the matter is one for reference to an arbitrator or to be settled by a jury.

The legal aspect of the adjustment of variations is somewhat in conflict with custom. In the case of a *considerable* departure from the plans and specification during the execution of the contract, the matter requires careful adjustment. The work must be considered as extra within the meaning of the contract, provided there is evidence that the parties were agreeable to its being subject to the contract terms, and conditions. If, however, the departure from the plans, &c., involves a class of work of much higher value or quite beyond anything originally contemplated, and the terms of the contract do not appear to apply, such extra work should he treated as wholly out of the scope of the contract, and not subject to the architect's valuation. Parts of the judgment in the case of *Thorn* v. *Corporation of London* clearly show that it is otherwise if the terms of the contract are applicable, and there is evidence from which it may be inferred that it was the intention of the parties that the new work should be subject to those terms. On the other hand, the decision in *Rex* v. *Peto* shows that where the variations involve a class of work quite beyond anything originally contemplated, and it is evident that the conditions do not apply, such further work must be regarded as beyond the meaning of the contract and paid for at fair value, the basis of such fair value to be the opinion of a jury or arbitrator.

It is, however, customary to stipulate that no variation shall vitiate the contract, but that all authorised extras for which a price may not have been previously agreed, and any omission, &c., &c., shall be measured and valued, &c. Further, that the variations shall be valued

at the rates contained in the contractor's original estimate, or, where the same may not apply, at rates proportionate thereto.

It is, of course, contrary to common-sense to contend that the architect should have legal power to practise extortion on the builder or fraud on his client, and it was long since decided by the Courts that an architect had no power to substitute one class of work or materials for another, without adjustment of the figures in the final settlement.

Another question which has sometimes to be considered in dealing with extras, is that of suggestions to the employer by the builder Such a point only arises in the case of small contracts: generally in the erection of private residences. In larger works all dealings take place through the medium of the architect. It is sometimes found, however, that the builder has suggested to the employer the use of other materials, or a method of construction rather different from that intended. If any such suggestions are not made with a clear understanding that they will involve extra cost, the builder cannot recover from the employer the cost of carrying them out. Neither can they be treated as extras to the contract, except by an express agreement to that effect.

A similar question sometimes arises from the suggestion to the architect, of other materials and work in place of those specified, owing to difficulties or impossibilities of conforming with the specification. In such case it should be distinctly noted, that the employer or the architect must be apprised of any extra probable cost, and sanction to such extra must be obtained in the manner provided in the contract, in order to entitle the contractor to payment in respect of it. But there is an important side issue on this point. If the contract is an

entire one, *i.e.* involving the necessity to complete, the case is different. The contractor has agreed to perform a certain work within a definite time for a specified sum of money, probably subject to penalties for breach of contract. It is then entirely his affair if he has contracted to do an impossibility, and the substitution of other materials or work, although of higher value, must be at his own expense and subject to the sanction of the employer or architect. On the other hand, it is only equitable that if the employer or architect assents to the use of materials or work of less value than those agreed upon in the contract, he cannot claim a reduction on the contract, except by express agreement.

There is sometimes a tendency on the part of contractors to take an unfair advantage of the delay caused by the ordering of extra work. Generally speaking, extension of time means an increase of cost to the contractor, but it is frequently impossible, after considerably adding to or varying the work, to get the contract completed in the stipulated time. The matter of delay is one which should be left entirely in the architect's hands. He should have full power to extend the time if desirable owing to the addition of work to the amount originally contemplated. In reference to the payment of liquidated damages for failure to complete by a certain day, it was held by the Court of Appeal in *Dodd* v. *Churton* that if the delay was consequent on orders for additional work, the contractor was exonerated from the payment of damages unless there was an express agreement to the contrary.

An occasional source of difficulty in building contracts is the carelessness sometimes shown in drawing up the conditions. One still occasionally finds forms of contract made up of a string of more or less traditional clauses

handed down from master to pupil, without any careful examination into their exact significance. Difficulty sometimes occurs in this way through the insertion of overlapping clauses.

An instance, perhaps the most prominent, is that of a contract containing a more or less general clause referring all matters in dispute to an arbitrator, together with clauses making the architect's certificate final. The effect of such a combination is, apparently that the builder may refer any points to the arbitrator's decision during the course of the work, unless they had already been decided by the architect's certificate. This has been argued as of the nature of a dispute-prevention clause, but it is only so to a limited extent. If the architect has issued a certificate to the effect that certain moneys are due, there can be no dispute as to such matter. A dispute may, however, be raised on this matter at any time before the issue of the certificate, with the result that the architect's jurisdiction is ousted and his powers replaced by those of the arbitrator. The certificate clause cannot be overridden by the arbitration clause if the certificate is conclusive and a condition precedent to payment. The certificate would only be impeachable for fraud. Generally speaking, however, if the certificate is not conclusive, matters within it may be referred under the arbitration clause.

The importance of the arbitration clause cannot be too strongly emphasised.

It was suggested at one of the meetings of this Institution that the arbitrator should be required to view the building from time to time, and thus be in touch with the progress of the work, and be capable of giving his decision without delay. Strong arguments against such a course are the further complication of the parties

to a contract, already of a complicated nature, and the circumstance that there is, I think, a very general opinion that the arbitrator should have no connection whatever with the job until a dispute has arisen.

A large part of the matters generally referred to the arbitrator under an arbitration clause, is of the nature of measurement and valuation. This, I think, points to the fact that there is no more suitable person for the position of arbitrator under a building contract than a quantity surveyor of recognised standing. I do not agree, however, that the arbitrator should be the surveyor whose work probably forms a part, or the *basis* of the contract. It is very desirable that the gentleman appointed to the position of arbitrator should be in no way connected with the contract, beyond being appointed under it. I am aware, however, that the practice of appointing the agent or servant of either party as the arbitrator has been upheld by the courts. The decisions in *Ives & Barker* v. *Willans, Donkin* v. *The Proprietors of the Leeds Canal,* and other cases, clearly show that the architect or engineer may arbitrate over matters resulting from his own acts unless there is good reason to expect that he will act unfairly. Neither, under the decision in *Jackson* v. *The Barry Railway Company,* is he ineligible for the position of arbitrator by reason of his having expressed his opinion before the reference.

The adjustment of accounts on the completion of a contract is a matter now very generally attended to by a surveyor, usually the surveyor who prepares the quantities, and with whom the copy of the priced bill of quantities is generally deposited. There is little to say in reference to this final adjustment. The basis of it may be a bill of quantities priced by the contractor, a bill priced by

the surveyor (tenders being at a percentage on or off), or it may be that the quantities are not part of the contract, as in the case of a simple lump sum contract. In most cases the contract prices are the bases of adjustment. In the case of a lump sum contract in which the quantities do not form part of the contract the variations are measured and priced at fair value. It is practically impossible to price them at the same rates as must have been adopted by the contractor in order to produce his contract price. Such a procedure would involve the taking off of the whole of the work, pricing, comparing the total with the contract price, and adding or deducting a percentage throughout in order to make the two totals agree.

As has already been stated, the tendency of practice is in the direction of making the quantities part of the contract. Many arguments have been brought against this, the principal probably being that the employer never knows what he has to pay until the contract is complete. Such an argument, in most cases, applies equally well to contracts in which the quantities are not incorporated in the contract. Again, it has been argued that the practice of making the quantities part of the contract is somewhat misleading, and is not to be recommended, as items may in that way become extras which would not otherwise be so. This depends largely on the surveyor's position and mode of appointment. The work of the quantity surveyor should only be entrusted to thoroughly competent men, who, in consideration of a fair fee, will undertake the responsibility for their errors.

The practice of incorporating the quantities in the contract and providing that the work to be done shall be that contained therein, is strongly to be recom-

mended. Such a course generally ensures the thorough consideration of all points of doubt in the plans and specification, and the elimination of any discrepancies. If the quantities are incorporated without making them the basis of the contract, there is, according to the decision in *Priestly and another* v. *Stone,* no implied warranty of their accuracy.

If the quantities are inaccurate, and the contractor bases his tender on the assumption that they correctly represent the amount of labour and materials to be provided, there cannot be much dissension from the opinion that the surveyor is morally liable for such misrepresentation, even though it be accidental.

The circumstances of every case must, however, be considered independently. There is always the possibility of such curious procedure as that which led to the case just referred to, *Priestly* v. *Stone,* where the plans were completed and the specification written, regardless of the bill of quantities which had been previously prepared and deposited with the architect. Such a case furnishes a forcible example of the necessity for the completion of the drawings and specification before submitting them to the quantity surveyor. Much of the responsibility for this state of things rests on the shoulders of the building owners, who too often want to see the building erected in an unreasonable time.

In conclusion, I would again urge the necessity of fairness to both parties to a contract. It must not be forgotten that the essence of a just contract is exchange in strict equity, of cash for kind. There is still unfortunately, among some architects and contractors, a feeling of natural enmity. There should be no foundation for such a feeling, and there can be no doubt that the thorough investigation of the matters which are in-

tended to form parts of the contract, and the elimination of all uncertainties by the surveyor before the signing of the agreement, has had much to do with the improvement in the relations between architects and contractors.

Mr. Hy. Lovegrove (Fellow), in proposing a vote of thanks to Mr. Blake, said it was somewhat difficult to go clause by clause through the Paper without having had time to read it attentively and consider the author's points, which, carefully arranged as they were, dealt with a great number of incidents connected with building contracts and the preparation of quantities. It appeared to him that many difficulties, and, indeed, nearly all the difficulties, arose from the loose way in which these things were often done. He thought many Members present would agree with him that it was not always possible to get correct and complete drawings. The business was generally done in such a rush that the surveyor got only hastily prepared specifications and rough tracings from which to prepare quantities. If more time were allowed, the architect could, he thought, prepare at least some of the details, so that the surveyor would be able to take out his work accurately, and the contractor would not be misled. He remembered a case where a leading builder sent back the drawings furnished to him, asking for details, because on a previous occasion he had entered into a contract on prices calculated from hastily prepared $\frac{1}{8}$-inch scale drawings, which resulted in a very great loss to him.

It seemed to him that longer time should be allowed to go properly into all the matters involved in a large building contract.

He noticed a suggestion in the Paper as to the arbitrator visiting the building from time to time during

the progress of the work. This seemed to him to be very undesirable, for it would mean giving someone else a voice in the management of the work besides the architect. It would, he thought, be much better to let the parties note, as the work progressed, the matters in dispute, which would be eventually hidden or buried, so that reliable evidence could be brought before the arbitrator on the completion of the contract.

A rule was laid down by the Royal Institute of British Architects that the gentleman acting as arbitrator must be a Fellow of the Institute, but it seemed to him that many Fellows of the Institute knew very little about measuring and valuing, and that it would be better that the arbitrator under contracts should be a known surveyor of ability and experience, rather than a gentleman whose sole business was the designing and carrying out of architectural work.

He should like to know a little more about the case mentioned by Mr. Blake, which he had no doubt would, in due course, be reported in the *Professional Notes.*

If he might be allowed to diverge somewhat, he would like to refer to the very anomalous position of quantity surveyors under contracts. In a case which occurred recently, the architect and surveyor being both friends of his, a large public building was tendered for, and when the tender came in, the amount very much exceeded the sum fixed by the corporation, who were building owners. The corporation then sent back the drawings to the architect and refused to pay the charges of the quantity surveyor, who thus had not only expended a great deal of labour but also a large amount of money for lithography, for like most corporations they wanted tenders from all over the country. But it could

not be right for the corporation to obtain that great advantage and pay nothing for it.

The scale of charges, too, for quantity taking seemed to be, in many cases, extremely low, especially in the case of contracts for public bodies.

It had been argued that making the quantities part of the contract would cause the work to be done in a slovenly way. He thought this would hardly be so if reliable men were engaged who would not leave out anything, but would feel, as the builder he was sure would feel, that whatever was built would be paid for. He had known, as many Members must have known, cases in which the builder had been practically ruined through not having written orders for extras. In one case which he well remembered the builder lost a very large sum of money and had practically to give up. The extras not ordered in writing were thrown aside, and the contract in hand therefore proved a ruinous loss.

Whether the quantities were part of the contract or not, the adjustment of extras and omissions seemed to be a very simple matter. Of course, putting aside for the moment the legal question of orders, it seemed to be desirable for the architect and surveyor to make out a list and to discuss the extras and omissions. The builder would then meet the surveyor and go into the matter and make out a proper bill. Probably it might be advisable in some cases for the architect to settle extras as the work proceeded, but in the end it came to the same thing. He thought, however, that architects should certainly explain the employment of a surveyor to their clients, were they private individuals or corporations.

It seemed to him the duty of every surveyor to do

what he could to prevent building contracts becoming a sort of gamble or game of chance. There were many things which might happen to benefit the builder: for instance, in a case where, when entering into a contract, a builder was the only person who knew that there was a large amount of good gravel to be got from the site and probably on that account made a low tender. He knew a case where a contractor sent in a low tender because he knew that the excavation for the foundation beds for engines and machinery would recoup him. But in an ordinary way there was no doubt that the work should be arranged in a perfectly open and fair manner, and the price settled on a business-like and equitable basis.

Mr. Howard Chatfeild Clarke (Fellow) said he felt very great pleasure in seconding the vote of thanks to Mr. Blake for having contributed a Paper of so much interest. The subject was a deep one, and Mr. Blake's masterly summary of its various points would well repay a more careful study of the Paper than was possible at the Meeting.

But as all questions of extras and omissions arose out of construction, it seemed to him that the troubles which so often occurred could be avoided from the commencement if an architect would only do his duty for which he was paid by his employer, by preparing proper drawings and specifications from which the quantities could be properly taken. It this were done, very little difficulty was likely to arise between an honourable architect and an honest builder in carrying out the work on such drawings and specifications. The trouble generally arose from the architect neglecting to prepare his own specifications (a practice which was, he feared,

growing more and more in the profession), but leaving them to be prepared after the quantities were taken out by the quantity surveyor, who could not always fully know the architect's intention. He thought if the whole matter were started on straight lines such as he had indicated, a large amount of after trouble would be avoided. Extras and omissions must, of course, be dealt with at the final completion, and there must be an arbitration clause for that purpose under the contract; but he rather gathered from Mr. Blake that in the contracts of which he was speaking there was a considerable power to arbitrate on all kinds of things under the contract. That, he thought, was not likely to form a fair contract between the employer and the builder, for the architect, if there were to be arbitration on every question of materials and such matters, would have very little power under the contract at all. He ought certainly to be master during the execution of the works.

He quite agreed with Mr. Blake where he stated, in the early part of his Paper, that the employer should have a clear knowledge of what was being done. Trouble frequently arose from the architect not informing his employer, as he should do, that he was employing a quantity surveyor, for whose fees he was legally liable.

He should have thought that in the case mentioned by the previous speaker the corporation ought to have known that the quantities were being prepared from an architect's drawings, and that they would be liable to pay the quantity surveyor for his trouble, whether the matter proceeded or went off.

A very important point was mentioned by Mr. Blake with regard to the question of final certificates. No architect could be too careful with regard to these, in

which of course were included the extras and omissions. He was lately concerned in a case where the architect, contrary to the instructions of his employer and the advice of his solicitor, gave a final certificate on a contract where there were considerable extras, with the result that the employer was advised that he was legally bound to pay the balance on that certificate. He refused to pay the charges of the architect, who had to bring an action for them. That particular case was, as a matter of fact, settled; but it was always very important that the architect should make it clearly known to his client what he was going to certify for, and show him clearly beforehand what were the extras and omissions. If such extras and omissions were really the subject of a written order from the architect's office, he did not quite see, unless there were gross carelessness, why troubles need arise. The builder had it distinctly before him in his contract that he was not to execute any extra work without a printed order duly filled in and signed. When he received that order, if he proceeded with the work and at the end produced the orders to the quantity surveyor, surely very little trouble was likely to arise: in fact he did not quite see where the trouble could come in.

Of course all these questions of contract must rest largely on the honesty of the two men—the architect and the builder—and if each wished to act fairly to the employer he did not believe that the question of making the quantities part of the contract or not was one of vital importance. Personally, he had never adopted that course. The quantities formed no part of his building contracts, but he simply furnished the drawings and specifications, and when tenders were invited a quantity surveyor was specially named. The contractors knew

that they were fully protected, if they agreed to the nomination, by having an honourable man acting between the parties. The variations, both of additions and omissions, were, in the end, measured up, the quantities being first priced and remaining sealed during the work.

Mr. Philip E. Pilditch (Fellow) said it was not long since the subject of Building Contracts was last discussed in that room, but such was the perennial interest of the question that he was sure all would agree that Mr. Blake's Paper was a welcome addition to *The Transactions.* He did not know that he could quite go so far as the author, whose Paper seemed mainly a plea for more consideration for the builder. His own experience as an architect had taught him that, generally speaking, builders were not quite such injured innocents as the author of the Paper appeared to suppose, but were able, as a rule, to take very good care of themselves. Whenever a case came before a judge, or an official referee, or an arbitrator, his experience was that the builder generally won.

The plea for less stringency in building contracts as against the builder was one that had of course a certain amount of weight; but in view of the fact that the builder always had it in his own power to protect himself by refusing to sign any contract which contained what he considered onerous clauses, he could not quite agree with Mr. Blake as to the hardship. In his experience, builders frequently refused to accept clauses which they considered onerous, and got those clauses modified in some cases. What there was to prevent the builder adopting that course he could not quite see.

At the beginning of his Paper, Mr. Blake referred to

the well-discussed subject of builders' risks arising from undisclosed matters of detail, and from the incorrectness of plans or specifications submitted by the architect. He agreed with him that, in such cases, an injustice was inflicted on the builder by the recent decision which he quoted, in which the onus of practically all builders' risks arising from any inaccuracy in the plans or specifications was thrown on the builder. As he had said, the builder might protect himself, for he was not obliged to enter into any contract, but he thought it somewhat unfair to ask him to accept a contract drawn in such a manner as not to accurately define his liability.

With regard to extras and omissions, Mr. Blake spoke of the great difficulty of the final settlement; but whenever an order was given for extras or omissions what was there to prevent the amount which departures from the contract represented being then and there settled? As a matter of fact that was the system which he adopted in most contracts that passed through his office; and although it might at first sight seem to be difficult to arrange in the course of the contract for the amount of extras to be settled at the time, he did not find it to be really difficult when a builder once got used to it. It was not always easy to get a builder who had not so contracted before to do it at first, but he did not find that he would raise objections the second time, while many difficulties were by those means obviated. Unless some such plan were adopted, how was either the architect or the client to know what the ultimate cost of the building would be? One of the most serious difficulties arose from the fact that extras were allowed to accumulate until they reached a much larger amount than the employer contemplated. The adoption of the course he suggested would obviate that difficulty.

The question referred to in the Paper as to who should be the arbitrator had been, he thought, fully thrashed out on a previous occasion, when the general consensus of opinion was that, in all the ordinary matters arising in the course of the execution of works under contract, the only proper and legitimate arbitrator was the architect carrying out the work.

But in the more important class of questions, which might turn on the construction of the contract itself or the question of time and the like, it was desirable that an outside arbitrator should be appointed. That, he thought, was a much better system than either leaving the architect himself to be arbitrator in all matters or appointing an outside arbitrator for every trifling dispute.

In the recently decided case of *Rogers* v. *James*, mentioned by Mr. Blake, Lord Justice Lopes, in concurring with the Master of the Rolls, decided that the particular clause in the contract which he quoted gave the architect no jurisdiction to decide any question of negligence as between himself and the building owner, and that the building owner could bring an action for negligence against the architect. He considered that a very excellent decision, and likely to have good results. Architects were sometimes inclined to think that although they might make little mistakes arising out of their own hastiness or negligence, no action could lie against them, as they were covered by the relation in which they stood to their clients.

Then there was just one other point in the Paper to which he would allude. Mr. Blake referred to the question of building contracts in which, through carelessness in drawing up the conditions, contradictory clauses, or rather overlapping clauses, were sometimes

found. He (the speaker) thought that sort of thing often occurred from the fact that there were usually two parts to a building contract. There was the contract proper, and then (what usually was an important part of the contract) a long string of conditions. He thought that as a general rule it would be found, where there were discrepancies, that they arose between the clauses of the contract proper and the clauses of the conditions. It was his experience that the clauses in the conditions sometimes bore a meaning exactly opposite to the clauses in the contract itself.

Mr. H. T. Steward (Fellow) said the first thing that struck him on hearing the Paper read was that it was necessary to take care that, in discussing the question, all speakers should view it from the same standpoint, or they were likely to arrive at different conclusions. There was a very natural tendency to argue the matter having regard only to the conditions of contract with which each speaker was familiar. That those conditions necessarily differed very materially was a matter of common knowledge. He thought most of the troubles mentioned in the Paper as occurring in cases which, he had almost said, were quoted *ad nauseam*, arose from the actual wording of the particular contracts in question, and unless all those particular contracts contained identically the same words and identically the same clauses, it might be taken for granted that any lawyer could "drive a coach and four" through any argument based on any given judgment.

There was, he thought, one way of ensuring a settled contract, and that was to adopt the form settled by the Architects and Builders, which had been well known for many years, and had always worked well. The

main clauses were adjusted between the two bodies, who perfectly well knew their respective business. There might possibly be some question as to whether it was necessary to stipulate that the arbitrator appointed should be a member of the Royal Institute or not; but it was within the power of anyone drawing up a contract to put his pen through that and insert the name of A. B. or C. D., and to agree on it then and there, or to leave the nomination of the arbitrator to the President of the Institution, or any other person in whose judgment he had confidence. He had found the Architects and Builders' form of contract a very fair one, which had led to but few disputes.

Many of the difficulties referred to in the Paper were rather connected with engineering than with building contracts. He found that the two classes of contract differed largely, not only in the wording, but in more material points, and could hardly be considered as in the same category.

In engineering contracts it was usual for the engineer to be appointed the sole arbitrator and judge of all matters under the contract, and so long as contractors were willing to accept such conditions he could not see that anyone had a right to object to any two men making what contract they pleased. If a man liked to contract to build the dome of St. Paul's on a pin's point, or to do any other impossibility, then he must get out of it in the best way he could. But apart from the question of freedom of contract, the discussion had in view the most equitable and easy way of settling matters which arose under a contract, although not expressly included in it.

On this point he would like to say one or two words. It had been said by a previous speaker that specifica-

tions were sometimes very incomplete, and that drawings were often found without specifications. He did not think that this involved great hardship either to the builder or the architect. It certainly meant a little more labour for the surveyor, but this he was willing to undertake as a rule, and when he had prepared the quantities he made a specification in accordance with the quantities. He could not see that the builder was injured by a specification being prepared by the surveyor, provided he were a competent man. On the surveyor's competence everything in such a case depended, but it was unnecessary to say that a man was expected to know his business. The difficulty generally arose from an incompetent surveyor attempting to prepare quantities or the architect preparing them himself, when he did not possess the necessary skill. On the accuracy of the quantities and the skill exercised in their preparation depended the question whether they should be made part of the contract. There was no reason, he thought, for making them part of the contract if the architect were an honourable and capable man, as architects were with very few exceptions, and if the surveyor was honourable and capable, as surveyors were with very few exceptions. When he (Mr. Steward) was his own architect and prepared his own quantities, as he did sometimes, he always made them part of the contract, as a protection to the builder. If, when this was done, the builder could not take care of himself, he did not know his business.

Of course he assumed that the architect and client both thoroughly made up their minds as to what they wanted to do. In many cases the client had not fully made up his mind. He had a sort of sketch-idea, and the architect also had a sketch-idea; but if things

were at the beginning put into proper shape, he could see no reason why there should be large variations, or large extras and omissions, or any necessity for making the quantities part of the contract.

Foundations were always difficult matters to deal with, but the difficulty could be got over by including them in such a way that the building owner might know pretty well before he started what he was going to spend. There should be no doubt, within a very small sum, what his ultimate liability would be, except on this one question of foundations, and then only in exceptional cases.

A previous speaker had referred to drawings and specifications being altered. Everyone knew what he might call the scandalous case which had been quoted where the architect varied the drawings after the quantities were prepared, and then, apparently, put them forward as if they were the proper quantities on which the building was to be carried out. But he might mention that it used to be the custom that when a surveyor prepared bills of quantities he made a copy of the drawings and of the specification, from which he prepared them, and when the contract was to be signed, the architect, builder, client, and surveyor all met, and the surveyor handed the copies over to the builder, telling him: "This is a copy of the drawings, and this "is a copy of the specification from which I prepared the "quantities." It was a protection to the builder, and it appeared to him to be a very good custom. He did not know why it had fallen into disuse of late years, except for the reason that the builder used to appoint a surveyor, as he seldom did now. The architect used to appoint one and the builder another. The Builders' Institute had now the opportunity, in contracts for

certain sums for the Office of Works, of nominating a surveyor, thus somewhat returning to the old custom, against which he saw no reason. He might say that in his own practice he had always, in any difficult or undefined quantity of work (particularly stone-fronted buildings where the beds of the stone were not clearly shown or described, under which circumstances doubts would probably arise between the architect and the builder), made half-inch details of the front, and had them confirmed by the architect. From these he could show at any time what the bed of any stone was. He adopted this practice in the case of the Home and Colonial Office building in Whitehall, of which Sir Gilbert Scott was the architect, and in many other large buildings and found it most useful. It tended to peace between the parties, and saved many disputes which might otherwise have arisen.

Something had been said about the appointment of surveyors by boards or corporations and the appointment not being by the architect, but he did not know that, in the interests of their own profession, surveyors ought to object. He was frequently so appointed and he did not object to being paid by a corporation, for it relieved the surveyor of all anxiety as to whether he would be paid for his work. He had entered into many contracts with corporations under their own seal to prepare the schedules of quantities, for a certain remuneration, from the drawings put before him by the engineer, and to provide (say) 50 copies, to include lithography and all expenses of the kind. He saw no harm in this, or why a corporation should not make a direct agreement with him as surveyor. If the matter did not go on, in any case he had the sealed agreement of the corporation to pay him a certain fee, which he thought was a distinct advantage.

Mr. C. JOHN MANN (Fellow) said he joined cordially in the vote of thanks to Mr. Blake for bringing this very important subject forward, and he could do so perhaps even the more heartily because he ventured to disagree with him on many points in the Paper.

First, as to the quantities forming part of the contract. He certainly had always felt (and he thought he was not alone) that when once quantities were correctly prepared it did not matter whether they were part of the contract or not.

It had been argued on previous occasions that, for many reasons, it was undesirable that they should form part of the contract, and he thought one reason was that their doing so seemed to offer an encouragement to inaccuracy and carelessness in taking them out.

In the case of quantities prepared by some of the gentlemen (alluded to by a previous speaker) who, to put it mildly, had not studied the taking out of quantities so much as others had done, he thought the quantities ought to be made part of the contract. Settling the amount for extras and omissions ought not to be a difficult matter when the quantities had been as carefully taken out as they should be.

He rather differed from Mr. Pilditch's suggestion that each matter of variations should be settled at the time the order was given. It would be very difficult to see the full scope of the differences which might have to be adjusted until the work had been executed.

He thought it would be a great advantage in many cases that arbitrators should be surveyors, and they should certainly be persons who had nothing to do with the particular contract under settlement.

The question of final certificates was one on which he should like to have seen some light thrown. He

understood that sometimes a certificate of completion was given as well as a final certificate. He was under the impression that they might be two distinct matters. He had been told by some architects that they had never given a completion certificate, but only a final certificate dealing with matters of money. He thought on some contracts a separate certificate was given when the building was completed to the satisfaction of the architect.

Mr. ARTHUR HARSTON (Fellow) said it was very important to bear in mind that the conditions suitable for one particular contract might be utterly unsuitable for another. A contract for, say, a £1,000 villa must necessarily vary in many important particulars from one regulating the completion of a £200,000 public building, and the duties of the architects arising out of these conditions would, of course, also correspondingly differ.

With regard to the payment for the quantities, the unfortunate quantity surveyor quoted, who supplied a corporation with quantities and did not get paid for them, had probably himself to blame, for he had not made a proper contract with the corporation. It should be kept in mind that even professional men thus acting for a corporation should have a contract under the corporation seal, for the affixing of their common seal was the only way in which a corporation could bind itself.

Reference had been made by Mr. Steward to the good old practice of the quantity surveyor taking copies of the tracings. Everyone would agree that after the quantities were taken out not a single line should be added to the plans. If a quantity surveyor took copies

of the tracings as furnished to him, he then had something which he could compare with the original drawings for his own protection and that of the builder. But in some cases this would be extremely difficult to do. In a contract which he now had in hand there were 270 sheets of drawings. The only objection he saw to the quantity surveyor taking tracings was that corporations were becoming very well informed as to the quantity surveyor and the architect, and after paying an architect they would not pay a quantity surveyor to do the same business over again.

It had been truly said that quantity surveyors charges had been cut down, but that was no reason why the quantity surveyor should do the architect's business. Of course if the architect were incompetent to draft a proper specification, he must get someone else to do it.

Personally he had never had any difficulty in settling extras and omissions. He had for the last 40 years written his own specifications, and he could hardly imagine how a quantity surveyor could write a specification for an architect, or give due weight to his ideas as to how the work should be carried out.

He would not go into the question of arbitration. It might be very suitable in the case of one contract and not in another, and there were also various kinds of arbitrations. It had been contended that an arbitrator should have uncontrolled power over the materials and all matters under the contract, but it was difficult to get a man whose knowledge was so encyclopædic as to enable him to deal with everything. Experience was continually teaching him that his own knowledge of materials was not yet exhaustive.

The question of rejection of materials might be arranged in this way. A large contract had recently been

arranged in which no arbitration was to be held until completion of the work. That was objectionable in one way, as all sorts of unforeseen claims were brought up to be arbitrated upon at the end of the work; but that objection had been cleverly got over by the lawyers by a provision that no arbitration was to be held on the quality or rejection of any material, unless notice, at the time of the rejection, had been given to the architect, and the architect had communicated it to his client. By that means he knew what was in the future, and was also enabled to get the evidence which might be required to deal with an arbitration of that sort. As to the question of the construction of contracts, any lawyer would say that unless it was so specially laid down, although the architect might have power to do everything as regards the completion of the work, he could not construe the contract.

He noticed in the Paper a hint that it was sometimes very pleasing to one's employer to be able to cut down the bill of extras at the builder's expense. He had known architects who liked to have a large bill from the builder, and then to cut it down and go to their client and say: "See what I have saved you." That was, of course, an entirely wrong thing to do. In his own experience of 40 years he had very seldom had a case of that kind. His extras and omissions were generally very few, as nearly all the necessary details were given in the contract drawings and a careful specification. Not infrequently, a contract was finished to the satisfaction of the client at less than contract price, owing to something which had proved not to be necessary having been cut out.

As to the remark that nothing should be varied but by a written order signed by the architect, that ought to be understood in all cases, but he was afraid that in a

very large number of instances no order was given, except perhaps by initials on the tracing.

With regard to the case of *Priestley* v. *Stone*, where the quantities were taken out from unfinished drawings, he should doubt whether a good quantity surveyor would take out quantities from unfinished drawings. His own inclination would be rather to refuse the work, and he had little sympathy with anyone who, having done this, found himself in trouble.

The time allowed for the preparation of drawings and specifications should not tempt either the quantity surveyor or the architect to do work inaccurately or hurriedly, but they should insist on having proper time.

With improperly taken out quantities there was always difficulty in getting a builder to tender. It was a condition stated that the builder should verify, but he was not allowed time to verify.

He could not quite understand the reference to the case of *The Tharsis Sulphur Company* v. *McElroy*, " where girders shown on the drawings were much too " weak for their purpose." There must, he should have thought, have been some sort of guarantee arising out of the contract on the part of the builder, that the girders should be fit for their purpose. If a man built a warehouse he would not usually be expected to guarantee that the warehouse should be capable of sustaining a certain weight, and it appeared to him somewhat mysterious that if a builder put in girders specified by a contract, he should be held responsible if they were too weak for the purpose.

As to the quantities forming part of the contract, the fact must not be left out of consideration that they might form part of the contract in various ways.

For many years he had made the quantity prices form part of the contract, whilst eliminating the measurements and the extensions. It was necessary, of course, that they should be carefully examined to see that the extension was properly carried out, so as to be sure that the lump sum of the contract was fairly based on those prices. He did not insist upon minute and mathematical accuracy, but they should fairly represent the basis of the contract sum. In that way a schedule of prices was obtained for use in the settlement of extras and omissions.

Some Boards for whom he had done a good deal of work, had appointed a quantity surveyor and did their own lithography, and had arranged that the quantity surveyor should enter into a contract with them, and that if anything were improperly omitted the quantity surveyor should be responsible to the builder. On the other hand, if anything were taken in excess the poor quantity surveyor was in the unfortunate position that he had to make good the cost incurred by the Board.

The case of *Rogers* v. *James* had been mentioned. No respectable body of professional men would endeavour to get away from the results of their own negligence or want of skill. If one had to support the respectability of one's profession, one must be at all times liable to make good any loss that occurred in that way. But the case of *Rogers* v. *James*, was a very peculiar one. The architect had given a certificate which determined the amount to be deducted for some omitted work which could not be carried out. The builder in the end sued the owner for a considerable sum, and the owner put forward the certificate of the architect as governing the whole matter, and refused to pay anything more. The owner obtained a verdict in his favour. But at the same

Sessions the architect sued the owner for his fees, and the owner counterclaimed for negligence. He said that though he had been compelled to pay a sum less than the builder claimed, it was more than he ought to have paid, and thus the architect had been negligent. The architect's decision was held to govern the business between the builder and the owner, but although the architect in certifying was acting in a *quasi* judicial capacity, he was held liable to the owner for negligence. Whether that arose from some defect in the pleadings or not he did not know, but it was claimed on the part of the architect that the owner was estopped. Whether there was any mysterious virtue in the doctrine of estoppel he could not say, but judgment was given and was appealed from and confirmed by the Master of the Rolls, who said that the power of the architect in that case was decisive between the builder and the owner, but he could not decide by his certificate as between the owner and himself. That case was decided in 1891, but previously, in the year 1871, an important case was tried in the Court of Common Pleas, before Lord Chief Justice Bovill and Mr. Justice Keating, and subsequently carried to the Exchequer Chamber, on appeal, before Chief Baron Kelly, Baron Martin, Mellish, and Lush L.J.J. It had nothing to do with architects and builders, but he thought bore upon the principle of the matter under discussion.

It was the case of a Greek gentleman named Pappa who sent over some currants to a broker in Mincing Lane, with instructions to sell them in the usual way, and to be described fair average crop in the opinion of the seller's broker. A dispute arose as to the quality of the currants. The broker gave the opinion that they were not of average quality. On that the employer brought an action against

him for negligence. It was tried in the most elaborate way, and there were very long separate judgments from each of the six judges who gave their opinions, and it was held that he was acting in a judicial capacity in giving that opinion, and that, so acting, neither party could recover against him, either for negligence or want of skill. If they had chosen to take a man out of the gutter, and he decided between them, so long as there was no fraud or wicked mind brought to bear upon the matter the person chosen to decide was not liable for want of skill or for negligence, because he was acting in a judicial capacity.

That case was not mentioned in the Court of Appeal in the case of *Rogers* v. *James*. There another powerful court decided contrarily. Probably they would have decided differently if they had had that case before them. But to make the matter a little more complicated, the very same question came before a Court of Appeal from a County Court Judge. (*Chambers* v. *Goldthorpe*, Queen's Bench Division, this year before Channell and Bucknill, J.J.) The defendant admitted the plaintiff architect's claim, but counterclaimed for negligence. Pappa's case was cited, and the court, notwithstanding the case of *Rogers* v. *James*, settled in 1891, decided that it was not controverted, that if the plaintiff decided in a judicial position no action would lie, apart from fraud or dishonest conduct. So one came back to the decision of 1871, and how the lawyers were going to distinguish those cases he could not imagine. But the last decision given on the principle, embodied a very well-known rule that a person acting in a judicial capacity was not liable for negligence any more than a judge himself would be.

As to the case referred to in which the contractor was

exonerated from damages for delay on account of extra works, much depended on the exact words of the contract. There was the old case of *St. John's College* where the contractor agreed to do all the works, including the the extra work, in the time. He was not exonerated, but that was no doubt a hard case.

Mr. BLAKE, in reply, said that at that late hour, he would not speak at any great length, but would endeavour to reply to all the definite points that had been raised on the Paper.

He thought that Mr. Lovegrove was desirous of further information in regard to the case of *Torromé* v. *Scott*, tried during the first week in May before the Lord Chief Justice and a jury. This was a case in which an architect sued for fees. The architect had prepared plans and also taken out the quantities, and counsel had endeavoured to set up a case of fraud. The employer knew nothing of the employment of a quantity surveyor or anything beyond the 5 per cent. which he had to pay the architect for preparing the plans. He even went so far as to ask the architect to send him copies of the bill of quantities, which the architect did, minus the summary sheet, which stated the quantity surveyor was to be paid $2\frac{1}{2}$ per cent. That case would, he had no doubt, be reported in the next number of the *Professional Notes*.

In reply to another speaker who had, he thought, either heard only part of his Paper or looked through it somewhat hastily, he must repudiate the idea that he held a brief for the builders or looked upon them as "injured innocents."

As to the methods which Mr. Pilditch mentioned, he

could not see that there was any advantage to be gained by settling the actual cost of extras as the work progressed. Such a practice could, indeed, only be adopted where time was of no importance whatever. He feared the same speaker was under the impression that he advocated either that the architect should be sole arbitrator, or that there should be an arbitrator who should have power to deal with everything. He was far from suggesting that. There was no question that the architect should be the sole arbitrator on such matters as the quality of the materials; but there were matters outside that which should be dealt with by an independent arbitrator, and he was far from advocating that the architect should be the sole judge of everything.

As to Mr. Steward's remarks with regard to incomplete specifications, he agreed that the quantity surveyor should write the specification. The man who took out the quantities knew best how to do it.

In reply to Mr. Mann, he gathered from his remarks that he objected to the quantities being part of the contract. He said if the surveyor were of sufficient standing to insure accuracy in his work, there was nothing to be gained in making the quantities part of the contract, but on the other hand, quantities were sometimes prepared which should be made part of the contract.

But where was it possible to draw the line? Who was to say what was the standing of the quantity surveyor? It was a very nice point.

Then, in reply to the last speaker; first as to the girders referred to. He (Mr. Blake) referred to the case of *The Tharsis Sulphur Company* v. *McElroy*, where girders shown on the drawings were much too weak for their purpose

That was a case where a building was to be erected complete, and even though the girders specified were of insufficient strength, and were exactly specified, it was held by the Court that since the builder's contract involved the necessity to complete he must put in girders of sufficient strength, notwithstanding that those specified were utterly insufficient for the purpose,

He thought the reason that the case of 1871, quoted by Mr. Harston, was not brought up in opposition to *Rogers* v. *James* was that *Rogers* v. *James* was tried out on certain clauses, and he apprehended the other case would be tried out on agreement, and, as Mr. Steward said, those cases all turned on some particular clause. He regarded the position of the architect in *Rogers* v. *James* as that of a valuer only, so far as the disputed matters were concerned. It was so in *Rogers* v. *James* in the same way as in the recent case referred to. In the absence of the clause upon which the judgment was based, he could only suggest that explanation.

The President said he was sure all were indebted to the different speakers for having put forward the surveyor's view of this important question of contracts with builders. He hoped that the Royal Institute of British Architects, or their Committee having charge of the conditions of contracts, had very nearly arranged with the Institute of Builders what was to be a standing contract for some time to come. But he thought that what had been said on the present occasion called special attention to the importance of thoroughly considering the conditions of a contract, clause by clause, to find out whether each was applicable to the particular building

for which the contract was taken, and to vary the wording to suit the circumstances of each case.

The vote of thanks having been put, and carried unanimously, the Meeting then adjourned.

THE ANNUAL GENERAL MEETING

Monday, May 28th, 1900.

THOMAS MILLER RICKMAN (President) in the Chair.

The Report of the Scrutineers, appointed at the Ordinary General Meeting of Monday, May 7th, 1900, under the provisions of Article XLII. of the By-Laws, was read to the Meeting.

The Report declared that the following had been elected a

COUNCIL FOR THE ENSUING YEAR.

President.

JOHN SHAW (*Derby*)

Vice-Presidents.

SIR JOHN F. L. ROLLESTON (*Leicester*)
ARTHUR VERNON (*High Wycombe*)
HENRY DREW (*Exeter*)
FRED. THOS. GALSWORTHY (*London*)

Members of Council.

ALBERT BUCK (*Worcester*)
HERBERT THOMAS STEWARD (*London*)
CHARLES BIDWELL (*Ely*)
RICHARD HORSFALL (*Halifax*)
WILLIAM WRIGHT (*Wollaton, Notts*) (deceased)
GEORGE LANGRIDGE (*Tunbridge Wells*)
THOS. TAYLOR WAINWRIGHT (*Liverpool*)
HOWARD MARTIN (*London*)
JAMES STEWART KINCAID (*Dublin*)
ALEXANDER ROSE STENNING (*London*)
ALFRED SAVILL (*London*)
THE HON. EDWARD GERALD STRUTT (*Chelmsford*)
LESLIE ROBERT VIGERS (*London*)
THOMAS BLASHILL (*London*)
GEORGE SPENCER MATHEWS (*Birmingham*)
WILLIAM EDGAR HORNE (*London*)

Professional Associates of Council.

JOSEPH HENRY SABIN (*London*)
ARTHUR NORMAN GARRARD (*London*)

Associates of Council.

SIR RICHARD EVERARD WEBSTER, BART., G.C.M.G., Q.C., M.P.
SIR JOHN WOLFE BARRY, K.C.B.

The Report of the Council on the affairs of The Institution, and the Statement of Receipts and Expenditure for the year 1899 were read.

It was Resolved—"That the Report of the Council and the Balance Sheet be received and approved, and be printed and circulated with the 'Transactions.'"

It was Resolved—"That the Thanks of The Institution be given to Messrs. H. C. Newmarch and J. D. Whittaker for the efficient performance of their duties as Auditors, and that they be requested to continue their services for the ensuing year."

It was Resolved—"That the Thanks of The Institution are due and be given to the President, Vice-Presidents, and other Members and Associates of the Council, for the able manner in which they have administered the affairs of The Institution."

It was Resolved—"That the thanks of The Institution be given to Mr. John Wornham Penfold (the Honorary Secretary), to Mr. Julian C. Rogers (the Secretary), and the other officers of The Institution, for the able manner in which they have executed their several duties."

The President presented the following Prizes won by Candidates in the Professional and Preliminary Examinations, 1900:—

THE INSTITUTION PRIZE OF THE VALUE OF £15 15*s.*

to Hugh Colley Brierley, placed first in the Students Proficiency Examination, 1900.

THE SPECIAL PRIZE OF THE VALUE OF £10 10*s.*

to Henry Sydney Hancock, Junr., placed second in the Students' Proficency Examination, 1900.

THE "CRAWTER" PRIZE OF THE VALUE OF £10

for the best work in the subject "Principles and Practice of Valuation" in the Fellowship Examination, 1900,

to JAMES REGINALD PINEGER.

THE PENFOLD GOLD MEDAL

for the highest number of marks (over 75% of the maximum) in the Fellowship Examination, 1900,

to CHARLES JOHN HOWELL THOMAS.

THE "DRIVER" PRIZE OF THE VALUE OF £15

for the highest number of marks in the Examination, 1900, for Non-Student Candidates for the Class of Professional Associates,

to MARTIN LOWISH WHELDON,

AND

THE PENFOLD SILVER MEDAL

for the highest percentage of marks (over 75% of the respective maxima) in the Two Divisions of the Professional Associateship Examination, 1900, to the same Candidate.

THE "PRELIMINARY PRIZE" OF THE VALUE OF £2 2*s.*

for the highest number of marks in the Preliminary Examination in January, 1900,

to JOHN BELL GRIPPER.

It was resolved—

"That the thanks of the Meeting be given to Messrs F. SWAIN, A. ROODS, and W. R. HOOD, for their services as scrutineers."

A vote of thanks to THE PRESIDENT for his conduct in the Chair was carried unanimously.

The proceedings then terminated.

THE THIRTY-SECOND

ANNUAL REPORT OF THE COUNCIL.

Annual General Meeting, May 28th, 1900.

The time has again come round when it is the duty of the Council to render an account of their stewardship. They believe that their Report will be found to justify the statement that The Institution has, at no previous period of its history, been more prosperous or more full of promise as regards its future.

The following table shows that, taking all classes of Membership, there has been a net increase during the twelve months of 103 in the numbers on the roll, 71 of the total number being in the class of Professional Associates.

TABLE A.

	Honorary Members.	Fellows.	Professional Associates.	Associates.	Students.	Colonial Fellows.	Total.
May 1900	17	1883	757	88	336	15	3096
May 1899	16	1887	686	84	308	12	2993
	+1	−4	+71	+4	+28	+3	+103

The fall in the number of Fellows is accounted for by 24 deaths, 13 cessors of Membership from various causes, and 1 transfer to the class of Colonial Fellows, against which must be set a gain of 34 by election and transfer from the class of Professional Associates.

The increase in the numbers of the class of Professional Associates is due to 118 elections to this class, as against 47 transfers and cessors of membership.

The number of the Associates have been increased by the election of 5 new Members, and one Associate has resigned his membership during the year.

The class of students has increased in numbers during the year by 28.

Among the deaths during the year the Council note with regret the decease of Mr. Laurence Burd of Shrewsbury and Mr. R. R. Rowe of Cambridge, whose contributions to the *Professional Notes* are familiar to Members; of Mr. J. Carter Jonas and Mr Richard Trumper, who were among the earliest Members of The Institution; and especially deplore the recent loss of their esteemed and valued colleague, Mr. William Wright of Wollaton.

The increase, year by year, in the Membership of The Institution is set forth in the following table:—

Table B.

	Members (or "Fellows" after 1881).	Associates.		Students.	Total.
		Professional.	Ordinary.		
May 1869 ...	162		38	2	202
„ 1870 ...	180		59	2	241
„ 1871 ...	190		65	2	259
„ 1872 ...	205		67	4	276
„ 1873 ...	225		74	5	304
„ 1874 ...	247		89	6	332
„ 1875 ...	275		101	11	387
„ 1876 ...	300		119	8	427
„ 1877 ...	310		133	11	454
„ 1878 ...	312		134	8	454
„ 1879 ...	330		146	10	486
„ 1880 ...	342		155	10	507
„ *1881 ...	357		164	14	535
„ 1882 ...	480		235	7	722
„ 1883 ...	557	218	74	38	887
„ 1884 ...	666	307	80	58	1121
„ 1885 ...	703	317	86	86	1192
„ 1886 ...	716	316	84	80	1196
„ 1887 ...	741	339	89	108	1277
„ 1888 ...	798	333	90	102	1323
„ 1889 ...	910	334	89	110	1443
„ 1890 ...	1095	310	89	123	1617
„ 1891 ...	1374	336	96	140	1946
„ 1892 ...	1646	342	97	172	2268
„ 1893 ...	1629	353	93	181	2269
„ 1894 ...	1626	381	84	204	2309
„ 1895 ..	1629	430	83	210	2352
„ 1896 ..	1802	465	86	220	2573
„ 1897 ...	1808	540	84	252	2684
„ 1898 ...	1835	615	85	272	2807
„ 1899 ...	1887	686	84	308	2965
„ 1900 ...	1883	757	88	336	3064
				Honorary Members	17
				Colonial Fellows	15
				Grand Total	3096

* Since August, 1881, "Members" have been designated "Fellows" and in 1883 "Associates" were divided into "Ordinary" and "Professional" Associates.

Finance.

As regards the accounts, a comparison of the figures for the years 1898 and 1899, would be fallacious, owing, in the first place, to the fact that, during the whole of 1898, and nearly five months of 1899, The Institution was occupying temporary premises at a gross rental which included a variety of expenses, such as lighting and heating, rates and taxes, and housekeeper's accounts, which, under normal circumstances, appear as separate items of expenditure.

In the case of revenue receipts, a comparison is to some extent possible. Fellows' Subscriptions for 1899 show an increase of £148 1*s.* 0*d.*, accounted for, to a considerable extent, by the election of 37 new Fellows in Scotland.

The subscriptions of Professional Associates, which were not affected in the same way, show an increase of £115 10*s.* 0*d.*, and Students' Subscriptions an increase of £34 13*s.* 0*d.*

It is satisfactory to observe that the item "Hire of "Rooms" show a substantial increase. The nett receipts from this source, after deducting rent paid to the authorities of the Medical Examination Hall, were £130 14*s.* 0*d.* for the twelve months ending December 31st, 1898, whereas the receipts for 1899, after making a similar deduction for the first four months of the year, amounted to £317 2*s.* 0*d.* This is no doubt principally due to the greatly improved accommodation for arbitrations afforded by the new building.

"Dividends" naturally show a reduction, owing to the realisation of investments on capital account, to meet the outlay on the new premises. During the year, the sale of stocks for this purpose amounted to £9,000. Nearly

£1,100 of this amount was expended in providing new furniture and fittings.

The following is a summary of Receipts and Payments on Capital and Income Accounts for the year ended December 30th, 1899.

Table C. Summary.

Receipts.	£	s.	d.	Expenditure.	£	s.	d.
Revenue Balance in hand, January 1st, 1899	630	17	4	Total Payments out of Revenue (Current Expenses)	6,756	11	3
Total Revenue	8,754	0	5	On Account of the Building Contract	9,992	12	1
Interest	479	18	0	On Account of Architect's Commission	350	0	0
Sale of Stocks.	8,330	7	6	Incidental Expenses connected with the New Building	133	18	6
Loan from Suspense Account	500	0	0	Furniture and Fittings	1,082	13	9
				Balance in hand, December 30th, 1899	379	7	8
	£18,695	3	3		£18,695	3	3

The Investments.

The total Investments, at the date of this Report, are as follows:—

Accumulations Account.

£3,545	4	9	2¾ per Cent. Consols.
4,500	0	0	New South Wales 3½ per Cent. Stock.
2,006	0	0	London and North Western Railway 3 per Cent. Debenture Stock.

Library, Forestry, &c., Account.

1,900 0 0 $2\frac{3}{4}$ per Cent. Consols.

Prize Endowments Account.

503 1 11 India 3 per Cent. (on account of the Penfold Gift).

247 4 0 Midland Railway $2\frac{1}{2}$ per Cent. Debenture Stock (on account of the Beadel Bequest).

254 0 0 North British Railway No. 1 Preference Stock (on account of the Crawter Bequest).

413 16 8 $2\frac{1}{2}$ per Cent. Annuities (on account of the endowment of the Daniel Watney Forestry Prize).

440 10 8 India $3\frac{1}{2}$ per Cent. (on account of the Driver Bequest).

The total Investments, calculated at current prices, represent a sum of £14,281 6*s.* 0*d.*

On the expenditure side of the account, the increases are, in round numbers, as follows :—

Printing of *Transactions* and *Professional Notes* £30; General Printing £30; Salaries and Wages £255 (due, to a considerable extent, to the increase of the clerical and domestic staff); Postage £50; Stationery £10; Rates and Taxes (3 quarters) £333; Insurance £30; Fuel, Light, and Water (6 months) £73; Repairs £46; and in Housekeeper's Petty Cash Expenses, and exceptional increase of £150, due to the necessity of increasing or replacing the greater part of the household utensils.

Against these increases may be placed a saving of

eight months' rent, say £180 ; and a decrease in miscellaneous expenses of over £100.

The Examinations, taking one year with another, are as nearly as possible self-supporting.

The Benevolent Fund.

At the Annual Meeting in May,1899, the outgoing President, Mr. Robert Vigers, expressed his intention of doing something towards initiating the formation of a Benevolent Fund in connection with The Institution, subsequently giving most generous shape to the idea by contributing the sum of £500 as a nucleus for the Fund.

Mr. Viger's liberal gift was shortly followed by contributions of similar amounts from Mr. W. E. Horne, and from his father Mr. E. Horne (the latters generosity being emphasised by the fact that he is not a Member of The Institution), and by a munificent gift of £1,000 from Sir J. Whittaker Ellis, Bart., as well as donations of large amounts from other Members of The Institution.

The total sum received and promised up to the date of this Report is £6,791 3*s.* 0*d.*, the greater part of which has been placed on deposit to fructify until the scheme comes into practical operation.

It is to be hoped that, in course of time, the Fund will secure a much larger measure of support from the country Members than it has at present received. Seeing that London Members will be no more interested in its benefits than country Members, it is a little disappointing to note that the contributions of the latter do not amount to much more than 15 per cent. of the total sum received and promised. It may also be mentioned that the total number of contributors does not represent more than 9 per cent. of the Professional Membership.

The Committee after the most careful consideration, have decided to make an application to the Board of Trade for the Incorporation of the Fund under the Companies' Acts, with the style and title of "The Incorporated "Benevolent Fund of The Surveyors' Institution." This course offers many advantages, among them, the protection of the Fund from bureaucratic interference, and the securing of greater simplicity and economy in its administration.

The necessary Memorandum and Articles of Association are now in course of preparation, with a view to an early application to the Board of Trade, and the Rules and Regulations prepared by the Committee, and approved in principle at a General Meeting of Members and Contributors, held at The Institution on February 21st, 1900, will be submitted for confirmation and adoption to a Special General Meeting of Contributors, to be convened early in the coming summer.

Examinations.

The following table shows the increase in the number of the Candidates who have from year to year presented themselves for examination, and the proportion who have succeeded in qualifying.

Table D.

Years.	Preliminary Examinations.			Professional Examinations.		
	Candidates.	Passed.	Percentage.	Candidates.	Passed.	Percentage.
1881	13	6	46·15	2	1	50·00
1882	30	17	56·66	—	—	—
1883	44	22	50·00	25	22	88·00
1884	51	30	58·82	36	23	63·89
1885	46	37	80·43	43	31	72·09
1886	46	34	78·26	56	38	67·85
1887	53	39	73·58	58	45	77·59
1888	48	39	81·25	73	52	71·23
1889	51	41	80·39	71	51	71·83
1890	53	44	83·01	96	70	72·91
1891	76	60	78·94	92	68	73·91
1892	83	64	77·10	125	93	74·40
1893	77	57	74·00	149	100	67·11
1894	97	66	68·00	182	129	70·87
1895	121	80	66·11	196	141	71·93
1896	117	78	68·37	212	143	67·45
1897	133	91	68·42	236	151	63·97
1898	127	95	74·80	265	169	63·77
1899	145	112	77·25	290	184	63·44
1900	131	102	77·86	325	193	59·38
Totals	1,542	1,114	71·71	2,532	1,704	67·28

The numbers given as representing the Candidates who sat for the Professional Examinations of 1900, include 42 who in 1898 or 1899 failed to satisfy the Examiners in their "typical" subject, and presented themselves this year to complete their examination. Of these, 24 were in the Valuation sub-division, of whom 19 passed, and 18 were in the Building sub-division, of whom 12 passed.

This year 56 Candidates while satisfying the Examiners in their work as a whole, failed to pass in their "typical" subject, but are eligible for re-Examination in that subject only.

The following table shows the distribution of this year's Candidates among the different Divisions and Sub-divisions which the Examination comprises, and the number who passed in each.

TABLE E. EXAMINATIONS, 1900.

	Sub-Division I. Land Agency.			Sub-Division II. Valuation.			Sub-Division III. Building.			Total Maximum Marks.	Marks obtained.	Percentage of Marks obtained.	Percentage of Candidates who Passed.
	Entered	Passed.	Referred Back.	Entered.	Passed.	Referred Back.	Entered.	Passed.	Referred Back.				
DIVISION II. Student's Proficiency Examination	28	18	1	37	19	13	11	8	2	76,000	44,014	57·91	59·21
DIVISION III. Direct Examination for Professional Associateship	38	20	6	56	21	11	38	18	3	158,400	93,964	59·32	44·70
DIVISION IV. Examination qualifying Associates for Fellowship	26	21		31	28		16	7	7	73,000	44,698	61·23	75·71
DIVISION V. Direct Fellowship Examination	3	1		1	1		5	0	2	13,500	6,893	51·06	22·22
	95	60	7	125	69	24	70	33	14	320,900	189,569	59·07	55·85

This table does not include the 42 Candidates, who, having failed in their "typical subject" in previous years, came up for re-examination this year in that one

subject. Of these 42 Candidates, 31 satisfied the Examiners and thus completed their qualifying Examination, making the total number of successful Candidates 193, as shown in Table D.

Without attempting anything like a detailed analysis of the quality of the work in the various subjects, it may be stated that the Examiners' Reports pronounce the work

VERY GOOD in the subjects, Book-keeping, London Building Act, Hydrostatics, Mechanics, and Law of Fixtures, Dilapidations and Easements.

GOOD in Agricultural Chemistry, Farm Homesteads, and Algebra.

FAIRLY GOOD in Agricultural Valuations, Agricultural Law, Constructive and Working Drawings, Local Taxation, Mensuration, Reports, Road-making, Sanitary Science, Animal Physiology, Botany of Grasses, Geology and Soils, Stones and Cements, Copyholds and Land Drainage, Law of Arbitration, Lands Clauses Act, Landlord and Tenant.

UNSATISFACTORY in Building Estates, Iron and Timber Roofs, Principles and Practice of Valuation, and Valuation Tables.

VERY INDIFFERENT in Parochial Assessments, Forestry and Timber Measuring (both indoor and outdoor), and Quantities—with a few exceptions.

Generally speaking, most of the failures may be ascribed to the unsatisfactory character of the work in Valuations and Quantities, with the result of a lower percentage of passes than in any previous year since 1881.

The Prizes.

The "Institution" Prize of the value of 15 guineas was awarded to Mr. Hugh Colley Brierley, a "Land "Agent" Candidate in Division II., who obtained 748 marks out of a possible 1,000.

The "Special" Prize of the value of 10 guineas was gained by Mr. Henry Sydney Hancock, a "Valuation" Candidate who obtained 743 marks out of a possible 1,000.

The "Crawter" Prize was awarded for the best work in "Principles and Practice of Valuation" in Division IV. to Mr. James Reginald Pineger, a Candidate in Sub-Division II., who obtained full marks in this subject.

The "Penfold" Gold Medal was gained by Mr. Charles John Howell Thomas, a "Valuation" Candidate who obtained, in the Division IV. Examination, 812 marks out of a possible 1,000.

The "Penfold" Silver Medal, awarded to the Candidate who obtained the highest proportionate number of marks in Divisions II. and III., was gained by Mr. Martin Lowish Wheldon, a "Land Agent" Candidate in Division III., with a total of 992 out of 1,200 marks. This Candidate also gained

The "Driver" Prize of the value of £15, awarded annually to the Candidate who heads the list in the Division III. (direct Professional Associateship) Examination.

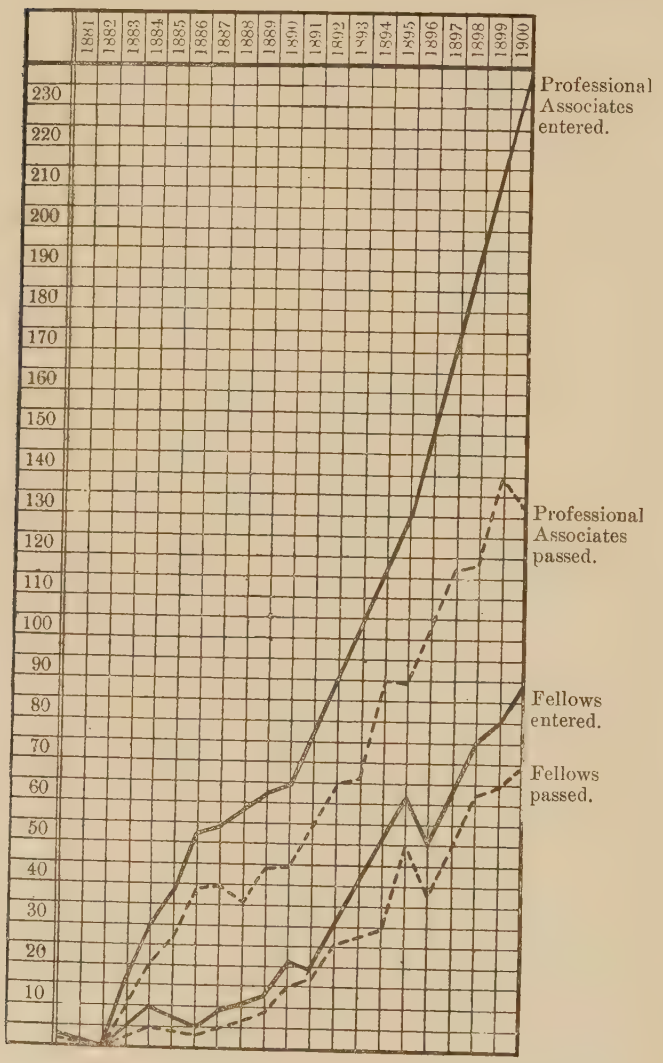
The "Preliminary" Prize for the Candidate heading the list in the Examination qualifying for admission to the Studentship of The Institution was awarded to Mr. John Bell Gripper, who obtained 462 out of a possible 500 marks.

The Examiners.

Again the Council have to express their sense of indebtedness to the Examiners who have done such valuable work on behalf of The Institution in the setting of the Papers (nearly 50 in number) in examining the Candidates' work, and in awarding the marks. The questions answered number this year some 22,000, and the magnitude of the task undertaken by the Examiners, many of whom act in a purely honorary capacity, will be fully apparent to the Members.

Many of the most important Papers have been undertaken by Members of the Council but, outside their number, the names may be mentioned, as Honorary Examiners who have rendered valuable service and to whom cordial thanks are due, of Mr. E. J. Castle, Q.C., Mr. G. M. Freeman, Q.C., Mr. J. W. Willis Bund, Mr. H. A. Rigg, Mr. R. F. Colam, who between them set the work in the various Law Subjects, and Mr. C. John Mann, Mr. J. W. Penfold, Mr. E. B. I'Anson, Mr. W. Eve, Mr. Gilbert Murray, Mr. H. W. D. Theobald, Mr. Frederick Lee, and, last but not least, Mr. William Fraser, of Glasgow.

The following diagram shows the number of entries and proportion of passes during the 20 years that the Professional Examination system has been in existence.



Special Certificate Examinations.

No Special Certificate Examination in Sanitary Science has been held since 1893, while the last Special Certificate Examination in Forestry was held in 1897.

This has been owing to the paucity of Candidates, due, possibly, to the uncertainty as to the holding of Examinations of the kind in any particular year. The Council, therefore, decided to definitely announce Special Certificate Examinations in these two subjects in June, 1900, without any reservation as to a minimum number of Candidates. It is hoped that this arrangement will assist in reviving the interest of Members in this particular branch of the Examinations.

Provincial Committees.

The following table gives the numbers of Fellows composing the several Provincial Committees, with the names of their respective Chairmen.

Table F. Provincial Committees.

Committee.	Chairman.	Number of Members.	Date of Expiration of Chairman's Year of Office.
A^1 Northumberland and Durham ...	T. J. Armstrong	28	April.
A^2 Cumberland and Westmoreland ...	F. Punchard ...	18	April.
B Counties Palatine	Henry Hartley	96	June.
C Yorkshire	J. Farrer ...	78	May.
D Salop and Hereford	H. J. Wyley ...	31	May.
E Derby and Stafford	H. G. Duncalf...	40	May.
F Nottingham and Lincoln	S. Kingston ...	40	May.
G Monmouth and South Wales... ...	R. Forrest ...	32	May.
H Warwick and Worcester	E. Bettridge ...	55	June.
I Leicester, Northampton, and Rutland	C. G. Bolam ...	45	May.
J Cambridge, Huntingdon, Norfolk, and Suffolk	J. Looker ...	46	May.
K Berks, Bucks, and Oxon	A. Lawrence ...	41	April.
L Beds, Essex, Herts, and Middlesex ...	Hon. E. G. Strutt	54	May.
M Devon and Cornwall	G. C. Smyth-Richards ...	43	April.
N Somerset, Glo'ster, and North Wilts	E. M. Hippesley	47	April.
O Hants, Dorset, and South Wilts ...	F. J. Smith ...	86	May.
P Kent	G. Langridge ...	69	May.
Q Sussex	J. Woodhams ...	37	August.
R North Wales and Radnor	J. E. Poundley	16	May.
S Irish Land Agents' Committee ...	A. H. Wynne...	188	March.
T Scottish Committee	T. Binnie ...	88	Jan.

The following Table shows the Attendances at Council and Committee Meetings, from May 15th, 1899, to April 2nd, 1900 (both inclusive).

NAMES.	Council Attendances.	Committee Attendances.	Total Council and Committee Attendances.	Percentage of Actual to Possible Attendances.
FELLOWS.				
Bidwell, C.	5		5	20·0
Blashill, T.	8	4	12	63·2
Buck, A.	4		4	
Drew, H.				
Fair, J. W.				
Galsworthy, F. T. ...	7	4	11	38·8
Horsfall, R.	4		4	14·3
†Kincaid, J. S. ...				
Langridge, G. ...	7	7	14	50·0
Martin, H.	14	10	24	85·7
Rickman, T. M. ...	15	17	32	80·0
Rolleston, Sir J. F. L.	7	1	8	24·2
Savill, A.	5	2	7	35·0
Shaw, J.	5	2	7	28·0
*Squarey, E. P. ...	1		1	4·5
Stenning, A. R. ...	11	8	19	63·3
Steward, H. T. ...	9		9	56·2
Strutt, Hon. E. G. ...	10		10	34·5
*Sturge, W.				
Vernon, A.	9	4	13	37·3
Vigers, L. R.... ...	11	14	25	75·7
*Vigers, R.	7	14	21	58·9
Wainwright, T. T. ...	1		1	5·5
*Watney, D.	12	9	21	75·0
Wright, W.	7	2	9	42·8
PROFESSIONAL ASSOCIATES.				
Garrard A. N. ...	12	9	21	80·7
Sabin, J. H.	15	16	31	86·1

* Ex-officio Members of the Council.

† Representing the Irish Land Agents' Committee.

THE PUBLICATIONS.

Since the date of the last Report another volume of *Transactions* has been issued, and another volume of the

Professional Notes has been completed. Both publications tend to increase, year by year, in volume and variety of matter, and it is hoped and believed in utility to the Members at large. That the latter is the case is evidenced by the great expansion in the Professional Query section of the *Notes*, by means of which every Member of The Institution is able to obtain responsible opinions on points of practice from his brother Members, without expense or trouble or a delay of more than a few hours. The Council much appreciate the readiness of so many of the leading Members to place their stores of professional knowledge and experience at the service of others.

The attention of the Members has been specially drawn to the contemplated further legislation on Agricultural Holdings, and an interesting discussion on the Government Bill took place on April 9th, when a considerable number of Country Members expressed their views. The possible need for legislation in regard to rights of light and air was also discussed, after an introductory memorandum read by the President.

The Employment Registry.

The Employment Register continues to prove very useful, especially to the younger Members. Since the date of the last Report about 100 names have been placed on the register. It may be noted that although employers are making use of it with increasing frequency, it has not, of course, been possible to find engagements for every applicant, though the qualifications of all of them have been brought many times under the notice of those requiring assistants, with satisfactory results in a large number of cases notified to the Secretary, and

probably in other cases in which the applicants have neglected this formality.

The Forestry Museum.

The Forestry Collection has been rearranged, and as far as possible classified. The number of specimens has increased from 125, as shown in the previous catalogue, to 402. The principal additions have been a fairly complete series of British trees, from Windsor Forest, oak-wood under the impact of shot, from the Admiralty, charcoals used in the manufacture of gunpowder, from Waltham Abbey, pathological specimens, examples of pruning, and the commencement of an herbarium of lignious plants.

Further useful exhibits are promised from Kew, from the Woods and Forests Commission, the War Office, the Botanic Gardens, Edinburgh, and from private individuals.

Certain varieties of foreign timbers, as, for example, the Jarrah and Karri, enter so largely into daily use for wood paving, piles under water, &c., that a considerable collection of timbers from Australia has been got together, and there are also smaller collections from the Cape, Natal, Cyprus, Canada, Japan, Jamaica, etc.,— There are specimens also of Baltic fir, for pit-props, and Siberian larch.

The gradual completion of the Museum, as a place of research and information for our Forestry Students, is commended to the friendly interest of the Members.

The Library.

During the year, the Library has been entirely reclassified and re-arranged, and the catalogue has been brought thoroughly up to date.

The present number of books is about 8,000, and as shelf-room has been provided for about 12,000, there will be no difficulty, so far as space is concerned, in largely increasing the number of books. The matter is now engaging the attention of the Library Committee, and the Council contemplate the early acquisition of a number of new works, and the substitution of new for old editions of many of the text books which the Library now contains.

The Council have the pleasure of announcing that they have decided to open the Library to Members and Students of The Institution from half-past five to eight o'clock on every week-day evening (Saturday excepted) from the 1st of October to the 31st of March. This arrangement should be specially appreciated by the younger Members of The Institution, and it is hoped that they will avail themselves of the additional opportunities thus afforded of prosecuting their professional studies.

The President's Conversazione.

The Members will look, in this Report, for the thanks hereby tendered to the President for his great hospitality in inviting them, on the 12th and 13th of October last, to a brilliant Conversazione given, at his own cost, to mark the formal opening of the Society's new House. About 1,000 Members were present on the two evenings.

The Country Meeting, 1900.

The third of the series of Institution visits to the Provinces, inaugurated by the visit to Manchester in 1898, was held at Leeds on the 25th and 26th of April, in response to a most cordial invitation from the York-

shire Provincial Committee. A large number of Members attended from all parts of England.

Nothing could be more gratifying than the reception given to the Members by their North Country hosts who spared neither expense nor trouble in making the gathering such a remarkable success, and for which the Council tender them their cordial thanks.

The proceedings commenced with a Reception by the Right Worshipful the Lord Mayor of Leeds, in his private rooms at the Town Hall. On the conclusion of the Reception, His Lordship took the Chair in the Council Chamber, and in graceful terms welcomed the Members to the City of Leeds, expressing the pleasure it gave him and Corporation to place the municipal buildings at their service.

After the morning sitting of the Conference, the Lord Mayor gave a further proof of his interest in the gathering by most hospitably entertaining the Members (120 in number) at luncheon and afterwards inviting them an organ recital specially arranged for them in the Victoria Hall.

At the Conference the Chair was occupied by the President, Mr. T. M. Rickman, and the following Papers were read and discussed;

(1) A Paper on "Leeds" by Mr. J. Hepper (Fellow);

(2) A Paper on "Nuisances and Noxious Trades," by Mr. W. Arnold Statham (Associate), Barrister-at-Law.

On the second day the Members broke up into parties for the purpose of visits and excursions—

(1) To places of interest in Leeds and its vicinity;

(2) To Bramham Park and Temple Newsam;

(3) To various Works in Sheffield.

The most cordial thanks of the Council and of the

Members who took part in the visit are due to the Lord Mayor of Leeds for his exceptional kindness and hospitality; to the Chairman and Members of the Reception Committee and their Honorary Secretary, Mr. C. H. Gott; to the Yorkshire Members generally for the heartiness of their welcome; to the gentlemen who acted as conductors to the various parties; to Mrs. Meynell Ingram, the owner of the Temple Newsam Estate, for receiving and entertaining the Members, to the Hon. F. L. Wood, who acted as her representative; and to Captain Lane Fox, the owner of Bramham Park, and his agent, Mr. Harrison.

Altogether the Meeting was a pronounced success, and cannot fail to greatly further the objects which the Council have in view in arranging these visits to the Provinces.

In conclusion the Council cordially thank the Members for their support during the past year.

RECEIPTS. FOR THE YEAR ENDING

	£ s. d.	£ s. d.	£ s. d.
To Cash at Bankers and in hands of Secretary brought forward			630 17 4
RECEIPTS ON INCOME ACCOUNT, VIZ. :—			
To 1,745 Fellows' Subs. for 1899 at £3 3*s.*	5,496 15 0		
„ 41 Fellows' Subs. Arrears at £3 3*s.* ...	129 3 0		
„ 23 Fellows' Subscriptions in advance for 1900 at £3 3*s.*	72 9 0		
„ 9 Fellows' Subscriptions restored to list at £3 3*s.*	28 7 0		
„ 1 Fellow restored on payment of ...	21 0 0		
„ Differences of Subscriptions on transfer	22 1 0		
	5,769 15 0		
Less Subscriptions paid twice and refunded	6 6 0	5,763 9 0	
To 734 Professional Associates', Associates', and Colonial Fellows' Subs. at £2 2*s.*	1,541 8 0		
„ 34 Professional Associates', Associates', and Colonial Fellows' Subscriptions Arrears at £2 2*s.*...	71 8 0		
„ 2 Professional Associates', Associates', and Colonial Fellows' Subscriptions in advance for 1900 at £2 2*s.* ...	4 4 0		
	1,617 0 0		
Less Sub. paid twice and refunded ...	2 2 0		
„ 292 Students' Subscriptions at £1 1*s.*...	306 12 0	1,614 18 0	
„ 9 Students' Subscriptions paid in advance for 1900 at £1 1*s.*	9 9 0		
	316 1 0		
Less Sub. paid twice and refunded ...	1 1 0	315 0 0	
„ Hire of Rooms	375 18 0		
Less Paid for Hire	58 16 0	317 2 0	
EXAMINATIONS.			
To Fees in Divisions III. & V. and forfeited ...	743 8 0		
„ Sale of Syllabus ...	30 1 3		
	773 9 3		
Less Examiners' and Moderators' Fees ...	398 11 0		
Advertisements, Printing, and Stationery... ...	194 9 11		
Hire of Hall & Instruments	84 1 6		
Prizes ... 28 18 3			
Less repaid on a/c of last year... 8 1 9			
	20 16 0		
Sundry Disbursements ...	14 18 11		
	712 7 10		
„ Dividends		61 1 5	
		479 18 0	8,551 8 5
RECEIPTS ON CAPITAL ACCOUNT, VIZ. :—			
To 43 Fellows' Entrance Fees at £5 5*s.* ...	225 15 0		
„ 42 Fellows' Difference of Entrance Fee on transfer from Associateship at £2 2*s.*	88 4 0		
		313 19 0	
„ 117 Professional Associates,' Associates', and Colonial Fellows' Entrance Fees at £3 3*s.*		368 11 0	
SALE OF STOCKS.			
To £6,030 7*s.* 11*d.* New 2½% Annuities ...	6,178 4 9		
„ £1,545 Great Eastern Ry. 4% Deb. Stock	2,152 2 9		
		8,330 7 6	9,012 17 6
„ Loan from "Suspense" Account ...			500 0 0
			£18,695 3 3

31st December, 1899. PAYMENTS.

1899.	£ s. d.	£ s. d.
PAYMENTS ON INCOME ACCOUNT, VIZ.:—		
By *Transactions:* Publication and Reporting	435 8 0	
Less sale of *Transactions*	30 16 10	
		404 11 2
„ *Professional Notes:* Publication	326 6 3	
Less sale of *Notes*	22 16 3	
		303 10 0
„ Salaries	2,204 1 8	
„ Wages	257 17 2	
		2,461 18 10
„ Housekeeper's Account, Commission on Cheques, and Sundry Disbursements		370 4 9
„ Postage and Receipt Stamps		457 5 1
„ Rates, Taxes, and Insurance		457 14 11
„ Fuel, Light, and Water		73 10 6
„ Rent	1,156 0 10	
Less Amount received from the Tribunal of Appeal	96 6 8	
		1,059 14 2
„ Repairs		46 2 6
„ Books of Account, Stationery, &c.		77 12 6
„ Printing and Binding		380 6 9
„ Parliamentary Papers, Periodicals, &c.		29 15 4
„ Provincial Committees and Junior Meetings ...		513 12 6
„ Country Meetings (Bristol)		120 12 3
PAYMENTS ON CAPITAL ACCOUNT, VIZ.:—		
By Instalments paid on Account of the Contract for New Building	9,992 12 1	
„ Architect's Commission and incidental Expenses in connection with the New Building	483 18 6	
„ Furniture and Fittings for the New Building ...	1,082 13 9	
		11,559 4 4
„ Cash at Bankers and in hands of Secretary		379 7 8
		£18,695 3 3

1899. BALANCE SHEET

ASSETS.

	£	s.	d.	£	s.	d.
CASH at Bankers and in hands of Secretary, viz. :—						
Accumulations Account	379	7	8			
Library, Forestry, and Geological Collections Account	378	2	6			
"Prize Endowment" Capital Account	0	14	9			
"Prize Endowment" Income Account	44	18	9			
"Suspense" Account	512	4	0			
				1,315	7	8
Furniture				1,500	0	0
Books, Forestry, and Geological Collections				4,546	8	0
INVESTMENTS, Value at this date, viz.:—						
Accumulations Account.						
£ s. d.						
3,545 4 9 $2\frac{3}{4}$% Consols at 99	3,509	15	8			
4,500 0 0 New South Wales $3\frac{1}{2}$% (1918) at 101	4,545	0	0			
2,006 0 0 London and North Western Railway 3% Debenture Stock at 106 ...	2,126	7	2			
				10,181	2	10
Library, Forestry, and Geological Collections Account.						
£ s. d.						
1,900 0 0 $2\frac{3}{4}$% Consols at 99				1,881	0	0
"Prize Endowment" Account.						
£ s. d.						
503 1 11 India 3% at 100	503	1	11			
247 4 0 Midland Railway $2\frac{1}{2}$% Debenture Stock at 87	215	1	3			
254 0 0 North British Railway No. 1 Preference Stock at 130	330	4	0			
413 16 8 Consols $2\frac{1}{2}$% at 96	397	5	7			
440 10 8 India $3\frac{1}{2}$% at 108	475	15	5			
				1,921	8	2
Amounts due, but unpaid at date, viz.:—						
Subscriptions and Entrance Fees	469	7	0			
Fees for use of Rooms	58	5	6			
Rent of Offices (Tribunal of Appeal)	33	5	0			
				560	17	6
				£21,906	4	2

N.B.—No value has at present been attached to the outlay in connection with the New Premises amounting to £31,167 12*s.* 5*d.* as on December 30th, 1899.

30TH DECEMBER, 1899.

LIABILITIES. 1899

	£	s.	d.
Accumulations Account	11,623	4	9
Library, Forestry, and Geological Collections Account	6,805	10	6
"Prize Endowment," Capital Account	1,922	2	11
"Prize Endowment," Income Account	44	18	9
"Suspense" Account Balance 512 4 0			
Do. Loan to General Account 500 0 0			
	1,012	4	0
Due to Sundry Creditors	498	3	3
	£21,906	4	2

Examined with the books and vouchers and found correct.

H. C. NEWMARCH.

TANSLEY WITT, Chartered Accountant. JOHN D. WHITTAKER.

40, *Chancery Lane*, 16*th May*, 1900

LIBRARY, FORESTRY, AND

1899.		£	s.	d.
Dec. 30th.	To Purchase of Books &c.	10	1	4
	„ Insurance	4	2	0
	„ Binding	1	3	3
	„ Decrease in the value of Investments	228	0	0
	„ Balance carried forward	*6,805	10	6

*Cash in hand	£378	2	6
£1,900 Consols 2¾%	1,881	0	0
Value of Books, Forestry, and Geological Collections ...	4,546	8	0
	£6,805	10	6

£7,048 17 1

ACCUMULATIONS

1899.					£	s.	d.
Dec. 30th.	To Depreciation on Furniture				212	13	9
	„ Sale of Stocks, viz.:—						
	£6,030 7 11 2½ % Annuities ...	6,178	4	9			
	£1,545 0 0 Great Eastern Railway 4% Debenture Stock	2,152	2	9			
					8,330	7	6
	„ Decrease in value of Investments at date, and in Stocks realised since last year				876	7	5
	„ Excess of Expenditure on Capital Account	2,546	6	10			
	„ Less Excess of Income applicable to 1899	1,889	7	0			
					656	19	10
	„ Balance carried down				11,623	4	9
					£21,699	13	3

"SUSPENSE"

1899.					£	s.	d.
Dec. 30th.	To Student's Fee refunded				1	1	0
	„ Paid to Revenue in respect of Fees for Entrances and Transfer				506	2	0
	„ Balance awaiting application carried forward, viz.:—						
	Cash at Bankers	£512	4	0			
	Loan to General Account ...	500	0	0			
					1,012	4	0
					£1,519	7	0

GEOLOGICAL COLLECTIONS ACCOUNT.

1899.		£	s.	d.
Jan. 1st.	By Balance brought forward	6,692	13	11
Dec. 30th.	„ Increased Values as at this date, viz.:—			
	Books and Forestry Specimens purchased £10 1 4			
	Value of Books, &c., presented 66 3 6			
		76	4	10
	„ Donations...	228	18	0
	„ Dividends on £1,900 Consols 2¾%	51	0	4
		£7,048	17	1
1900.				
Jan. 1st.	By Balance brought forward	£6,805	10	6

ACCOUNT.

1899.		£	s.	d.
Jan. 1st.	By Balance brought forward	20,616	19	6
	„ Furniture purchased for New Premises ...	1,082	13	9
		£21,699	13	3
1900.				
Jan. 1st.	By Balance brought forward	£11,623	4	9

ACCOUNT.

1899.		£	s.	d.
Jan. 1st.	By Balance brought forward	835	16	0
	„ Examination Fees received during 1899 ...	683	11	0
		£1,519	7	0
1900.				
Jan. 1st.	By Balance brought forward	£1,012	4	0

"PRIZE ENDOWMENT"

1899.				£	s.	d.
Dec. 30th.	To Decrease in value of Investments as at this date				130	15 9
	Balance carried forward				*1,922	2 11
	*"Penfold Gift," £503 1*s.* 11*d.* India 3% Stock at 100 ...	£503	1 11			
	"Beadel Bequest," £247 4*s.* Midland Railway 2½% Debenture Stock at 87	215	1 3			
	"Crawter Bequest," £254 North British Railway No. 1 Preference Stock at 130	330	4 0			
	"Daniel Watney Gift," £413 16*s.* 8*d.* Consol 2½% at 96...	397	5 7			
	"Driver Bequest," £440 10*s.* 8*d.* India 3½% Stock at 108	475	15 5			
	Cash in hand ("Beadel Bequest")	0	14 9			
		£1,922	2 11	£2,052	18	8

"PRIZE ENDOWMENT"

1899.					£	s.	d.
Dec. 30th.	To Paid for "Penfold Medals"	...	...	...	14	11	8
	„ Paid for "Crawter Prize"...	...	...	...	10	0	0
	„ Paid for "Driver Prize" ...	...	...	...	15	0	0
	„ Balance carried forward ...	...	...	...	44	18	9
					£84	10	5

CAPITAL ACCOUNT."

1899.		£	s.	d.
Jan. 1st.	By Balance brought forward :—	2,052	18	8

1900.		
Jan. 1st.	By Balance brought forward	£1,922 2 11

INCOME ACCOUNT.

1899.		£	s.	d.	£	s.	d.
Jan. 1st.	By Balance brought forward				29	2	11
Dec. 30th.	,, Dividends, viz. :—						
	"Beadel" Bequest	5	19	6			
	"Penfold" Gift	14	11	8			
	"Crawter" Bequest	9	16	4			
	"Daniel Watney" Gift	10	0	0			
	"Driver" Bequest	14	18	4			
	,, Excess of Expenditure on "Driver" Bequest, transferred from Income Account	0	1	8			
					55	7	6
					£84	10	5

1900.		
Jan. 1st.	,, Balance brought forward	£44 18 9

APPENDIX TO VOL. XXXII.

Obituary.

CHARLES BARRY, F.S.A. (Fellow), was the eldest son of the late Sir Charles Barry, the well-known architect of the Houses of Parliament and many other public buildings. He was educated at Sevenoaks Grammar School, and was trained for his profession in his father's office, where he for several years assisted in the carrying out of important works. He subsequently acquired an extensive and varied practice, among his larger works being Burlington House Piccadilly, Dulwich College, and Feltham Industrial School, and later, the house of the Institution of Civil Engineers in Great George Street.

He was frequently consulted as referee in competitions (among them that for the Glasgow Municipal Buildings) and as arbitrator.

He was one of the early Members of The Institution, having been elected in August, 1868. He was also a Fellow of the Royal Institute of British Architects, of which body he was elected President in 1876, holding that office for three years. In 1877 he was nominated to receive the Royal Gold Medal for eminence in architecture, a distinction which, 27 years previously, had

been conferred on his father. He was one of the Royal Commissioners for the Paris Exhibition of 1878, and acted as the British Member of the International Jury of the Fine Arts Section for awarding prizes for Architecture. In recognition of his services, the French Government conferred on him the Cross of an Officer of the Legion of Honour. He was also an Honorary Member of the Imperial and Royal Academy of Arts in Vienna.

Mr. BARRY'S death took place at Worthing, on the 2nd June, 1900, in the 77th year of his age.

LAURENCE BURD (Fellow) was the son of Timotheus Burd, land agent, surveyor, and valuer, Shrewsbury, and was when he died the senior partner in the firm of Burd, Son, and Evans.

Originally educated as a solicitor, he joined his brother in the firm on the failure of his father's health, and for the past 45 years devoted his attention almost entirely to estate agency, managing a large number of properties for noblemen and gentlemen in Shropshire and the West Midlands.

Mr. BURD was elected a Fellow of The Institution in 1884, and for some time held the position of Chairman of the Salop and Hereford Provincial Committee.

He was widely respected throughout the county and in the borough of Shrewsbury, and his extensive practice gained him a large circle of professional friends. In private life he was well known as a genial and liberal-hearted man. He was an exceedingly good musician and painter, and if he had adopted the latter pursuit as a profession would probably have achieved considerable success as an artist.

Mr. BURD'S name has been for many years familiar

to the Members as a constant contributor to the *Professional Notes*. His double training as a lawyer and land agent specially qualified him as an adviser on the large class of questions, asked in the *Notes*, lying on the confines of law and fact, and no one was more ready to give the benefit of his experience to his fellow Members.

His death took place on December 4th, 1899, in the 72nd year of his age.

HENRY LLEWELLYN CHOWEN (Fellow), chief agent for the Earl of Londesborough's estates in Yorkshire and Lincolnshire, died on 22nd March last, aged 58 years. Mr. CHOWEN, who was a Devonshire man, commenced his professional career in the estate office at Sledmere, subsequently becoming one of the agents to Lord Hotham, of Dalton Holme, and being finally appointed (1892) agent to the Londesborough estates, a position which he retained until his death. Mr. CHOWEN was elected a Member of The Institution in March, 1891.

HENRY ELLIS (Fellow) commenced his business career in the office of Messrs. Prickett and Ellis, of Chancery Lane and Highgate, in which firm he became a partner in 1877. He was elected a Fellow of The Institution in 1882. Mr. ELLIS had an extensive practice in the development of building estates, especially in the suburbs of London. He had also a wide connection in the provinces, and had lately carried out, among other works, a scheme of water supply to several villages in Gloucestershire. In 1898 Mr. ELLIS had a severe attack of influenza, which permanently weakened his health, and eventually led to his death, in his 57th year, on the 29th August, 1899.

THOMAS JAMES FLOCKTON (Fellow), of Sheffield, entered the office of his father, Mr. William Flockton, architect and surveyor, in the year 1837, and was afterwards for a short time in the offices of Sir Gilbert Scott and Mr. John Johnson, in London. He was for some months engaged on railway work under Mr. (afterwards Sir) John Fowler.

In the year 1845 he entered into partnership with his father, and was from that time actively engaged in his profession until within a very few days of his death.

During his long career of 62 years' active work he erected no less than 15 churches in and near Sheffield, as well as many of the banks and other important buildings in that town.

He held for 41 years the post of surveyor to the Sheffield Church Burgesses (during which time the income of the Trust was raised from a comparatively small sum to several thousands of pounds per annum), also surveyorships to the Town Trustees, Birley's Charity, the Grammar School Trustees, and the Boys' and Girls' Charity Schools.

He was for many years consulting surveyor to the Improvement Committee of the Sheffield Corporation, and designed the whole of the street improvements and negotiated the greater part of the purchases of the necessary lands, involving an expenditure of about a quarter of a million of money.

EDWARD WILLOUGHBY FOWLER (Fellow), born August 6th, 1831, was the son of the Rev. Luke Fowler, Rector of Freshford, co. Kilkenny, and grand-

son of the Bishop of Ossory, his great-grandfather having been Archbishop of Dublin.

He was educated at Cheltenham College and at Putney Engineering College. He was for many years engaged in railway work, and laid out the Dundalk and Enniskillen Railway, the Mayo line, and the Dublin and Meath Railway, and was consulting engineer to the Leitrim and Northern Counties Railway.

In 1876 he became agent to his cousin the late Earl of Clancarty, and conducted the estate successfully through the trying times of the land agitation. He was greatly esteemed by the tenantry, who recognised in him a just and true friend.

He died, after a short illness, from acute pneumonia, on the 17th of January, 1900.

JOHN CARTER JONAS (Fellow) was a son of Mr. Samuel Jonas, of Crishall Grange, and was born on the 10th February, 1831. He was a pupil of the late Mr. Nockolds, of Saffron Walden, subsequently entering the office of the well-known Mr. W. J. Beadel, and later on commencing business on his own account in Cambridge. Mr. JONAS was one of the first hundred Members to join The Institution, having been elected in July, 1868, and was the first Chairman of the Provincial Committee of his district, an office which he served for some years. He was also a Member of the Land Surveyors' Club and of the Surveyors' Association. No one was better known or more widely respected in the Eastern Counties.

Mr. JONAS acted for more than 30 years as agent for Earl Carrington, and also managed the Cambridgeshire estates of Messrs. Foster and the Buckinghamshire and Middlesex estates of Colonel Lee. He was also

surveyor to St. John's College, King's College, Emmanuel College, and other corporate bodies.

He had a wide reputation as a land valuer, and as a witness and arbitrator in many important compensation cases. His death took place on the 4th November last, in the 69th year of his age.

WILLIAM JURD (Fellow), architect and surveyor, of Southampton, was elected a Member of The Institution in 1883, and was engaged for many years in practice, principally in connection with the laying out of estates for building purposes and the development of property in the surburbs of that town, more particularly in the district of Woolston. His death took place on the 4th September, 1899, in the 69th year of his age.

JOHN LEES (Fellow), the senior partner in the firm of John Lees and Burchell, of Reigate, was elected a Member of The Institution in February, 1870. He acted for many years as surveyor to the Reigate Highway Board and the Reigate Turnpike Trust, and was the architect of the Public Hall, steward of the Manor of Walton-on-the-Hill, a director of the Westminster and General Life Assurance Association, and was secretary and managing director of the Wool Exchange, Coleman Street.

Mr. LEES' genial personality won for him the regard and respect of a large circle of friends. In addition to a high degree of professional skill, he had many scientific attainments, among them a very considerable acquaintance with gas manufacturing processes.

The town of Reigate owes a great deal to the wise forethought and public spirit of Mr. LEES, many of the

principal improvements having been carried out at his suggestion and with his skilful aid.

Mr. LEES' death took place on the 19th of November last, in his 70th year, and was preceded by a long period of failing health, which practically debarred him from business during the last years of his life.

ELI MILNES (Fellow) was senior partner in the firm of Messrs Milnes and France, architects, of Bradford. He was the son of the late Mr. Henry Milnes, of Manningham, served his articles with Mr. Walter Rawstone, of Bradford, and when little more than 20 years of age entered into partnership with the late Mr. John Dixon, on whose death he continued in practice by himself until 1863, when he took Mr Charles France into the firm, and, later on, his son and Mr. A. A. France. Having been in business in Bradford for nearly 50 years he took a large share in the remodelling of the town, his firm being among the earliest to undertake the erection of large warehouses in that place. He was also largely engaged as a valuer and arbitrator and in public improvements in Bradford and its neighbourhood. He was elected a Member of The Institution in January, 1891, and died at Harrogate in December, 1899, in his 70th year.

ALGERNON MOORE (Fellow) commenced business at East Molesey, in 1865, as a contractor, and later added to this business the practice of a surveyor and estate agent. He took an active interest in parochial affairs, being for some years churchwarden and a member of the urban district council. He was elected a Member of The Institution in November, 1891, and died on December 8th, 1899.

THOMAS NUTTALL (Fellow) was born at Bury (Lancashire), on February 20th, 1838, and received his education at the Bury Grammar School. He subsequently served articles with Mr. John Cross (who then practised in Bury), and after remaining with him as pupil and assistant for nine years, commenced business on his own account in his native town, acting as surveyor and engineer to various municipal and charitable bodies. He had a large practice in parliamentary work, and was well known throughout Lancashire as an arbitrator and umpire. He was also the architect of several important buildings in Bury, and took an active interest in the municipal and political affairs of the town. He was elected a Fellow of The Institution in 1890. His death occurred on the 6th of May last.

WILLIAM HENRY PROTHEROE (Fellow) was born at Leytonstone in 1846, and was the only son of Mr. Alexander Protheroe, who with Mr. Thomas Morris founded the well-known firm of Protheroe and Morris. After being educated privately, he became a student at the Government Horticultural College at Ghent, where he took the Gold Medal and high honours. He then joined his father, and on the latter's retirement in 1873 took his place in the firm.

His death took place quite suddenly on December 2nd, 1899, in the 53rd year of his age.

WILLIAM HAROLD RADFORD (Fellow), the son of William Radford, of Manchester, was born on June 14th, 1860.

He entered into partnership with his father in 1884, and the firm carried on an extensive practice at Man-

chester as civil engineers, surveyors, and valuers. He also assisted his father for many years in the duties of county surveyor and bridgemaster for Lancashire. He was elected a Fellow of The Surveyors' Institution in January, 1891. On the death of his father, in 1897, he was appointed county bridgemaster for Lancashire, which office he held up to the time of his death, which took place suddenly at his residence at St. Anne's-on-the-Sea from heart failure, supervening on an attack of pneumonia, on the 30th April, 1900.

NATHANIEL WISHART ROBINSON (Fellow) was a pupil with Messrs. H. E. Raynbird and Sons, surveyors, of Basingstoke, from which place he went to Birmingham and thence to Hemel Hempstead in 1869, entering into partnership with the late Mr. Alexander Smith, to whose business he subsequently succeeded. Mr. Robinson was elected a Fellow of the Institution in 1892, and died at Hemel Hempstead on the 31st December, 1899.

RICHARD REYNOLDS ROWE (Fellow) was born at Cambridge, where for nearly 50 years he practised as an architect and surveyor. For nine years Mr. Rowe held the office of borough surveyor, retiring from it in 1869. At the time of his death he was surveyor of bridges to the Isle of Ely County Council, architect for Fulbourn Asylum, and (a position he probably valued more than any other) clerk of the works at Ely Cathedral. Mr. Rowe had keen antiquarian tastes, and was an archæologist of no mean order. He was an enthusiastic Churchman, and the bias of his mind in this respect was very clearly displayed in the very useful and interesting Paper on the subject of "Glebe

Terriers" which he contributed to the *Transactions* of the Institution in 1882.

Mr. ROWE was elected a Member of the Institution in 1878.

He was also a Fellow of the Royal Institute of British Architects, a Member of the Institution of Civil Engineers, and President of the Institute of Sanitary Engineers. His death took place on December 21st, 1899.

CLEMENT CHARLES RIX SPELMAN (Fellow) was the son of Mr. B. Rix, a well-known practitioner in Ipswich, but took the name of Spelman on joining the firm of Messrs. Spelman, of Norwich, in 1874. He was held in high esteem in the county of Norfolk and in Norwich, of which city he was at one time the Mayor, besides holding from time to time several other important civic offices.

He was elected a Fellow of The Institution in January, 1890.

His death occurred on the 14th July, 1899, in the 55th year of his age.

RICHARD TRUMPER (Fellow) was born on the 2nd of April, 1822, his father being George Trumper, of the Warren, Hanwell, W., who greatly assisted Brunel in the Great Western Railway enterprise.

Mr. RICHARD TRUMPER was articled to Mr. Robert Baker, of Writtle, Essex, for three years, and stayed a somewhat longer period to assist in that office.

He then went to Southall to assist his uncle, Mr. James Trumper, who at that time managed the properties belonging to Christ's Hospital, St Thomas's Hospital, and other important estates. His uncle dying about 1860,

he succeeded to the above-named appointments and other agencies. A few years later he was appointed estate agent to Mr. Webb's properties at Newstead Abbey, Nottinghamshire, and Cowton, Yorkshire, and about 1870 the Duke of St. Albans entrusted him with the management of the Redbourne estate in Lincolnshire, and subsequently Bestwood Lodge in Nottinghamshire.

Besides acting as adviser in respect of the estates belonging to the Corporation of the Sons of the Clergy, Mr. TRUMPER was largely concerned in valuations of extensive properties in various parts of England and Wales for mortgage purposes. From 1867 to the date of his death he was a member of the Land Surveyors' Club, and was one of the few remaining original members of the Institution, having been elected on the 15th June, 1868. Mr. TRUMPER was deeply respected by a wide circle of private and professional friends. His death took place on the 26th October, 1899, in the 79th year of his age.

JOHN WADE (Fellow) was born March 29th, 1833, educated in Huddersfield, and commenced practice as an architect and surveyor in Barnsley in 1859. He was first associated with the late Mr. George Senior, afterwards going into practice on his own account. In 1868 he took Mr. Benjamin Turner .nto partnership, thus founding the present firm of Wade and Turner. He and his firm have been engaged in many important works in Barnsley and the neighbourhood, including Brierley Church and Schools, the Corporation Baths, the Miners' Offices, the Queen's Hotel, Board Schools, &c., &c. For about 10 years he filled the office of surveyor to the Local Board of Health, and was subsequently appointed

the first borough surveyor to the town. During his tenure of office several important public improvements were carried out.

His practice included engineering works in connection with the sewerage of neighbouring urban districts. He also practised extensively as a valuer, and was called in professionally in numerous compensation cases in connection with local railway and other undertakings and corporation improvements, as well as in light and air cases.

He was one of the surveyors and umpires under the Board of Trade (Railway Department), and had acted on their behalf in cases arising from the Midland Railway extensions in the district.

He was valuer in the West Riding for the Hull and Barnsley Railway, and gave evidence in support of the parliamentary application for powers, subsequently, on the construction of the line, acting for the company in their land purchases.

Mr. WADE was elected a Fellow of The Institution in December, 1882, and was an active member of the Yorkshire Provincial Committee.

He had been in indifferent health for several months prior to his death, which took place on February 24th last.

GEORGE WEBB (Fellow), of Tunstall, near Sittingbourne, Kent, was elected a Fellow of The Institution in 1869. He was a well-known land agent and valuer in East and Mid Kent, where he had the management of many extensive estates, and farmed on a large scale on his own account. He was also connected with most of the important arbitration cases which during the last thirty years have arisen in the county. He was

frequently consulted on the cultivation and management of fruit trees, and in 1875 contributed a valuable Paper on the subject to the *Transactions* of The Institution. He also carried out, in the face of great difficulties, considerable schemes of land drainage and reclamation in Sheppey. His death took place on the 25th June, 1899, in his 79th year.

STEPHEN WILLIAM WILLIAMS (Fellow), of Rhayader, Radnorshire, was the eldest son of the late Mr. Stephen Williams, of Mellington Hall, Shropshire. He was born on the 18th June, 1837, and was articled at Silverdale, Staffordshire. He had a considerable practice as an architect and surveyor throughout Radnorshire and the adjoining counties, and was in 1864 appointed surveyor of the county, a position he continued to hold for 35 years. During his business career he was frequently engaged as umpire, arbitrator, or witness in compensation cases, acting in 1896 as arbitrator for the Birmingham Corporation in a very important case in connection with the scheme for the water supply of that town. Mr. WILLIAMS was an antiquary of considerable repute, and was the author of a number of well-known historical descriptions and notes on the architecture of churches and monastic buildings in Cardiganshire and Radnorshire, and of reports on excavations at Strata Florida Abbey in the former county. Mr. WILLIAMS was elected a Fellow of The Institution in May, 1870, and maintained his connection with it up to the time of his death. He was a colonel of volunteers, and was high sheriff of the county of Radnor. He was also a Member of the Royal Institute of British Architects and a Fellow of the Society of Antiquaries.

WILLIAM WRIGHT (Fellow), Member of the Council of the Institution, was one of the most eminent land agents in the Midland Counties, and occupied a prominent position as agent to the Nottinghamshire, Yorkshire, Warwickshire, and Scottish estates of Lord Middleton, and many other properties, and up to a recent period, to the estates of the Earl of Carnarvon and of Earl Stanhope in Derbyshire, and of Lord St. Vincent in Nottinghamshire. He was also largely concerned in arbitration matters and with the settlement of every kind of question connected with the management, development, sale, and purchase of property in various parts of the kingdom. No member of the profession was more deeply respected or inspired greater confidence in those who sought his professional advice. Mr. WRIGHT was in fact a typical land agent, with the highest ideals of duty to his employer, straighforward and frank in all his dealings, keen and rapid in judgment, and possessed of remarkable tact and knowledge of men.

He was in fact a man of strong character, not afraid of stating his opinions clearly and plainly to a client, and consequently respected even when those opinions were at variance with his client's views. He was an excellent all-round sportsman, a hard rider to hounds, and, in his early days, a cricketer of considerable celebrity, having been for some years captain of the Notts County Eleven. He was also a well-known authority on hunters, breeding a great many himself, and acting as judge of hunters at the Horse Show at Dublin and other places.

Mr. WRIGHT was a member of the Wollaton division of the Notts County Council, and in his magisterial capacity rendered great services to his native county.

His death at the comparatively early age of 61 came as a great shock to a large circle of friends. Possessed as he was of a vigorous constitution and hardened by every kind of outdoor pursuit, no one who met him at the Leeds Meeting of The Institution on the 25th and 26th of April last would have imagined that a few days later he would suddenly succumb to the illness which terminated his life.

Mr. WRIGHT joined The Institution as long ago as 1872, and was elected a Member of the Council in May, 1893, having previously served as Chairman of the Nottinghamshire and Lincoln Provincial Committee, in the establishment of which he took the greatest possible interest.

He was a zealous Member of the Council and a firm supporter of every branch of The Institution work. His name was familiar as a frequent contributor to the *Professional Notes* on all matters connected with estate management and the interpretation of difficult points in connection with the working of the Agricultural Holdings Act. The Institution loses in him one of its most conspicuous figures, while the profession is appreciably the poorer by the death of so able, high-minded, and conscientious a member.

LIBRARY.

DONATIONS OF BOOKS, MAPS, &c.,

June 1st, 1899, to June 1st, 1900.

Donors.	Title of Work.
Academy Architecture, Publishers of	"Academy Architecture and Architectural Review," Vols. 15 and 16.
Accountant, Editor of the...	"The Accountant," 1899-1900.
Agent-General for New South Wales	"Annual Report of the Department of Mines and Agriculture," 1898. T. A. Coghlan's "Wealth and Progress of New South Wales," 1897-8.
Agent-General for Queensland	"Guide to Queensland, compiled from Official and Private Records."
Agricultural Gazette, Editor of the	"The Agricultural Gazette," 1899-1900.
Architect, Editor of the ...	"The Architect," 1899-1900.
Association of Lands Valuation Assessors for Scotland	"Proceedings," 1899.
Bath and West of England Society, and Southern Counties Association ...	"Journal," Vol. 10.
Billingham, J. A. L. ...	J. A. L. Billingham's Paper entitled "Building Materials, Bungalows, and Builders' Price List," Ceylon.
Brand, E.	J. Muir's "Utility of Sulphate of Ammonia in Agriculture," 1899.
Bright, Tom	Tom Bright's "Agricultural Surveyors' and Estate Agents' Handbook." Tom Bright's "Principles and Practice of Timber Measuring and Valuing."
British Architect, Editor of the	"The British Architect," 1899-1900.
British Fire Prevention Committee	"Fire Tests with Ceilings." "Fire Tests with Curtains." "Fire Tests with Doors." "Fire Tests with Floors." "Fire Tests with Glass." "Fire Tests with Partitions." "Fire Tests with Protective Coverings." "Fire Tests with Safes." "Fire Tests with Treated Wood." "The Safety of Theatre Audiences and the Stage Personnel against Danger from Fire and Panic."

Builder, Editor of the ...	"The Builder," 1899-1900. W. E. Davis's "Quantities and Quantity Taking," 1899. F. R. Farrow's "Specifications for Building Works and how to write them," 1898. B. F. & H. P. Fletcher's "Architectural Hygiene," 1899. B. F. & H. P. Fletcher's "Carpentry and Joinery," 1899.
Builders' Journal, Editor of the	"The Builders' Journal," 1899-1900.
Builders' Reporter, Editor of the	"The Builders' Reporter," 1899-1900.
Building News, Editor of the	"The Building News," 1899-1900.
Butterworth & Co.	Fawcett's "Concise Treatise on the Law of Landlord and Tenant," 2nd Edition by Lightfoot.
Cadell, G.	Exposition Internationale Bruxelles-Tervueren. Forêts, Chasse et Pêche. Section Belge, 1897. El Ingeniero Revista de Ciencias mathematicas fisicas y naturales. February, 1900. A. Mathey's "Le paturage en forêt.' 1900
Chartered Institute of Patent Agents	"Transactions," Vol. 17.
Clarke, A. D.	A. D. Clarke's "Farm Buildings," 3rd Edition, 1899 (two copies).
Clode, W.	W. Clode "On the Assessment and Valuation of Railways and Stations for Rating Purposes."
Clutton, H. S.	H. Swinden's "History and Antiquities of the Ancient Borough of Great Yarmouth," 1772.
Cobham, C.	S. Ireland's "Picturesque Views on the River Medway, 1793." A. Oliver's "Collection of the Statutes of Practical Utility, Colonial and Imperial, in force in New South Wales," Vols. 1 and 2.
Cobham, G. W.	J. G. Strutt's "Deliciæ Sylvarum; or Grand and Romantic Forest Scenery in England and Scotland."
Contract Journal, Editor of the	"The Contract Journal," 1899-1900.
Corporation of the City of London	"Calendar of Letter Books preserved among the Archives of the Corporation of the City of London at the Guildhall. Letter Book A, 1275-1298. Letter Book B, 1275-1312."

Curtis, C. E.	C. E. Curtis's "Thinning and Pruning of Forest Areas." C. E. Curtis's "Valuation of Land and Houses."
Duke, F. G. R.	A. Hopton's "Speculum Topographicum; or the Topographicall Glasse," 1611.
Dyer, F. B.	"A Survey of the Coast of Sussex made in 1587 with a view to its defence against Foreign Invasion, with Notes by M. A. Lower."
English Arboricultural Society	"Transactions," Vol. 1; Vol. 2, Parts I & 4; and Vol. 4, Part 2.
Estates Gazette, Editor of the	"The Estates Gazette," 1899-1900.
Fair, T.	E. Bain's "History of the County Palatine and Duchy of Lancaster," 4 Vols., 1836.
Farmers' Club, The ...	"Journal," March, April, May, 1900.
Field, Editor of the ...	"The Field," 1899-1900.
Forbes, W.	W. Forbes' "Timber Valuer's Companion."
Harston, A.	"A General History of the County of Norfolk," 2 Vols., 1829.
Higgins, G.	G. Higgins' "History of St. John's Wood."
Hine, G. T.	Bailey's "Annals of Nottinghamshire." Blackner's "History of Nottingham," 1815. Briscoe's "Notts and Derbyshire Notes and Queries." C. Brown's "Annals of Newark." "The Date Book of Remarkable and Memorable Events connected with Nottingham and its Neighbourhood," 1750-1879. Baron Dupin's "Commercial Power of Great Britain," 2 Vols., 1825. T. C. Hine's "Nottingham Castle, with Notes relating to the Borough of Nottingham." W. S. Inman's "Report of the Committee of the House of Commons on Ventilation, Warming, and Transmission of Sound." R Kerr's "Ancient Lights," 1865. Orange's "History of Nottingham," 2 Vols. Stevenson's "Bygone Nottinghamshire." "Walks round Nottingham by a Wanderer," 1835.
Homeland Association, Ltd.	"Croydon, New and Old." "Dartmoor and its surroundings." "Reigate and Redhill." "Rochester and Chatham." "Surrey's Capital." "Tonbridge." "Tunbridge Wells of To-day." "Wolfe Land."

Horticulture, Journal of, Editor of the ... ... } "The Journal of Horticulture," 1899-1900

Illustrated Official Journal (Patents), Editor of the... } "The Illustrated Official Journal (Patents)," 1899-1900.

Institution of Civil Engineers ... ... } "Proceedings," Vols. 1-20 inclusive, 1837 to 1861, and Vols. 136, 137, 138, 139.

Institution of Civil Engineers of Ireland ... } "Transactions," Vols. 1-9, 21, 22, and 27.

Institution of Junior Engineers ... ... } "Transactions," Vols. 8 & 9.

Institution of Mechanical Engineers ... ... } "Proceedings," 1847-1860 inclusive, and February, April, July, October, and December, 1899.

Institution of Surveyors of New South Wales ... } "Journal," Vol. 12, No. 10.

Institution of Surveyors of Tasmania ... ... } "Journal," March, 1900.

Invention, Editor of ... "Invention," 1899-1900.

Iron and Coal Trades Review, Editor of the ... } "The Iron and Coal Trades Review," 1899-1900.

King, P. S. & Son ... ... } J. C. Graham's and M. D. Warmington's "Taxation, Local and Imperial, and Local Government," 3rd Edition, 1899. C. H. Love's "Tribunal of Appeal under the London Building Act. Manual for Appellants."

Land Agents' Record, Editor of the ... ... } "Land Agents' Record," 1899-1900.

Land and Water, Editor of "Land and Water," 1899-1900.

Local Government Journal, Editor of the ... ... } "The Local Government Journal," 1899-1900.

Lockwood & Co. ... ... } Lockwood's "Builders', Architects', Contractors', and Engineers' Price Book," 1900. W. Lintern's "Traverse Tables for use in Mine Surveying," 1900.

Love, C. H. ... ... } C. H. Love's "Tribunal of Appeal under the London Building Act. Manual for Appellants."

Malden, W. J. ... ... } W. J. Malden's "Report on Manurial Experiments on Permanent Pasture at the Farm of the Agricultural College, Uckfield."

Martin, A. J. .. ... } A. J. Martin's "Pamphlet on the Purification of Sewage by Bacteria."

Martin, Thomas	Sir John Lubbock's work entitled "A Contribution to our Knowledge of Seedlings," 2 vols., 1892.
Middleton, R. E., and O. Chadwick	R. E. Middleton & O. Chadwick's "Treatise on Surveying," Part I.
Morris, Owen	"Michigan Engineers' Annual," 1899.
Newbiggings, T. and W. ...	T. and W. Newbiggings' "Principles and Practice of the Valuation of Gas, Electricity, and Waterworks for Assessment," 2nd Edition, 1899.
Newton, E. B.	E. B. Newton's "Diagrams exhibiting the Discharges and Velocities of Circular and Oval Sewers and Water Conduits, &c."
New Zealand Institute of Surveyors	"Journal," December, 1898, March, June, and September, 1899.
North of England Institute of Mining and Mechanical Engineers	"Transactions," Vols. 1 and 2 and 8 to 16 inclusive, and December, 1898; April, May, July, September, October, 1899; January, 1900. Annual Report of Council, 1898-99. "Borings and Sinkings of Northumberland and Durham," Vol. 1, A-B.
Oxford and Cambridge Club	"Catalogue of the Library of the Oxford and Cambridge Club," 1887.
Parry, R.	J. Stevens' "Parochial History of St. Mary Bourne, Hants."
Pilditch, J. J., the late	L. H. Max Jurisch's "Tables of Natural Lines and Cosines." Leopold Marquard's "Co-ordinate Geometry applied to Land Surveying,"
Property Market Review, Editor of the	"The Property Market Review," 1899-1900.
Public Health Engineer, Editor of...	"The Public Health Engineer," 1899-1900.
Raffety, H. W.	Garnier's "Land Agency," a new edition edited and revised by H. W. Raffety.
Richards, H. C., Q.C., M.P.	"Archæologia, or Miscellaneous Tracts relating to Antiquity," 18 volumes 1840-1880.
Rickman, T. M.	W. Hayes, "Portraits of Rare and Curious Birds with their descriptions, from the Menagery of Osterly Park," 1794. R. McWilliams' "Essay on the Origin and Operation of Dry Rot with a view to its prevention and cure," 1818.

Rigg, C. ... ... "Chart of the Principal Triangulation of Great Britain and Ireland."

Rogers, C. P. ... ... "Schedules of Contract for Works and Repairs to Buildings of the War Department at Barbadoes," 1892-1900.

Royal Agricultural Society "Journal," 1899-1900.

Royal Engineers' Institute "Professional Papers," Vols. 2 to 11 inclusive, 1878-1885.

Royal Geographical Society of Australasia ... ... "Proceedings and Transactions," Vol. 14, 1899.

Royal Institute of British Architects... ... ... "Journal," Sessions 1863-4, 1892-3, 1893-4, 1894-5, 1899-1900.
"Library Catalogue," 1834-1898.
Supplement to Catalogue, 1887-1898.

Royal Scottish Arboricultural Society ... ... "Transactions," Vol. 7, Part 3; Vol. 8 complete; Vol. 9, Parts 1 and 3; Vols. 10, 11, 12, 13, complete; Vol. 14, Part 1; and Vol. 16, Part 1.

Royal Statistical Society ... "Transactions," Vols. 1-20 inclusive, and 1899-1900.

Runtz, E. ... ... E. Runtz's "London Bridge as it is, and as it might be." (2 copies.)

Sanitary Institute ... ... "Journal," 1899-1900.

Scottish Farmer, Editor of the... ... ... "The Scottish Farmer," 1899-1900.

Société des Géomètres de France ... ... "Journal," 1899-1900.

Society of Architects ... "Proceedings," Vol. 1, Part 6; Vol. 2, Parts 5, 6, 8, 10, 11; Vol. 3, Part 12.
"Journal," Vol. 1, Parts 3, 4, 6, 7, 8, 9, 10; Vols. 2 & 3 complete; Vol. 4, Parts 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12; Vol. 5, Part 2; Vol. 6 complete; and Vol. 7, Parts 1, 2, 3, 4, 5, 6, 7.
"Yearbook and List of Members."

Society of Engineers ... "Transactions," 1898.

South Eastern Agricultural College ... ... "Journal," April, 1900.

Spon, E. & F. N. ... ... Spon's "Architects' and Builders' Price Book,"1900.

Standard, Editor of the ... "The Standard," 1899-1900.

Surveyor, Editor of the ... "The Surveyor," 1899-1900.

Surveyor-General for New South Wales	"Report of the Surveyor-General on the Department of Lands and Surveys of Western Australia for 1898." "Tenth Report of the Metropolitan Board of Water Supply and Sewerage of New South Wales, 1897-1898." "Report of the Department of Public Works of New South Wales."
Swain, E.	"Geological Society's Journal," Vol. 55, 1899. Geological Literature added to the Geological Society's Library during the year 1898.
Timber, Editor of	"Timber," 1899-1900
Timber Trades' Journal, Editor of the	"The Timber Trades' Journal," 1899-1900
Turner, Drysdale	Dr. G. A. Mantell's "Pictorial Atlas of Fossil Remains," 1850.
Tyssen, A. D.	A. D. Tyssen's "Elementary Law for the General Public."
Webb, F. N....	"Agricultural Handbook and Diary," 1900.
Wills, J. Shiress, Q.C. ...	J. Shiress Wills' "Law relating to Electric Lighting and Energy."
Wilson, F. P.	F. P. Wilson's "Land and House Property Year Book" for 1898.
Woodrow, F. J.	"Reports of the Day Census of the City of London," 1881 & 1891. J. Salmon's "Imperium in Imperio." "General Description of the Artizans' and Labourers' Dwellings erected by the Commissioners of Sewers of the City of London, situated between Middlesex Street and Houndsditch, in the years 1884-5."

OTHER GIFTS TO THE INSTITUTION.

FROM :—

Cory, E. J.	A Collection of Geological Specimens.
Mackenzie, D. F.	A Box of Micrographic Lantern Slides.
Lieut.-Col. Sir G. A. Leach, K.C.B.	A Carved Oak Newspaper Reading Stand, for the Tea-room.
Penfold, J. W.	A Large Water-Colour Drawing entitled "On the Digby Estate, Sherborne, Dorset," by T. J. Watson.

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THE SURVEYORS' INSTITUTION

(INCORPORATED BY ROYAL CHARTER),

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

LIST OF MEMBERS, JULY 1st, 1900.

Honorary Members.

Date of Election and of Transfer.	HONORARY MEMBERS.	Address.
1897, Feb. 17	ADDINGTON, THE RIGHT HON. LORD	24, Prince's Gate, S.W.
1895, Jan. 21	BEDFORD, HIS GRACE THE DUKE OF	15, Belgrave Square, S.W.
1893, Mar. 20	CARRINGTON, THE RIGHT HON. THE EARL, G.C.M.G.	50, Grosvenor Street, W.
1889, Dec. 9	CHAPLIN, THE RT. HON. HENRY, M.P.	Blankney Hall, near Lincoln.
1887, Jan. 24	COBHAM, THE RIGHT HON. LORD VISCOUNT	Hagley Hall, Stourbridge.
1883, May 21	DEVONSHIRE, HIS GRACE THE DUKE OF	Devonshire House, Piccadilly, W.
1881, Mar. 21 M. 1886, Mar. 8	GRANTHAM, THE HON. SIR WILLIAM	100, Eaton Square, S.W.
1880, Dec. 13 M. 1895, May 13	GULLY, THE RIGHT HON. WILLIAM COURT, Q.C.	Speaker's House, Palace of Westminster, S.W.
1900, Feb. 26	HOWARD, EDWARD STAFFORD, C.B.	Office of Woods, &c., 1, Whitehall Place, S.W.
1880, Dec. 13 M. 1895, Nov. 11	JAMES OF HEREFORD, THE RIGHT HON. LORD	41, Cadogan Square, S.W.
1889, Mar. 4	JERSEY, THE RIGHT HON. THE EARL OF, G.C.B., G.C.M.G.	Middleton Park, Bicester, Oxon.
1886, Jan. 11	KINGSCOTE, COLONEL SIR ROBERT NIGEL FITZHARDINGE, K.C.B. ...	19, South Audley Street, W.
1869, July 26 M. 1871, Feb. 27	LEACH, LIEUT.-COL. SIR GEORGE ARCHIBALD, K.C.B.	6, Wetherby Gardens, South Kensington, S.W.
1885, Apr. 20	M'CLELLAN, JOHN B., M.A., THE REV.	Royal Agricultural College, Cirencester.
1869, Feb. 22 M. 1894, Feb. 19	PHILBRICK, HIS HONOUR JUDGE FREDERICK ADOLPHUS, Q.C. ...	Barwick House, Yeovil, Somerset.
1879, April 28 M. 1892, Dec. 5	SMITH, HIS HONOUR JUDGE LUMLEY, Q.C.	25, Cadogan Square, S.W.
1893, Jan. 9	WANTAGE, THE RIGHT HON. LORD, V.C., K.C.B.	Overstone Park, Northampton.

Total number of Honorary Members, 17.

Fellows.

The names of those Fellows who have qualified for the Class by Examination are distinguished thus *

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1559	1889, Jan. 28	ABBEY, JOE BURMAN, A.M.I.C.E.	34A, New Street, Huddersfield.
1034	1884, Jan. 14	ABBOTT, ROBERT THOMAS G. ...	Whitley House, Malton, Yorkshire.
2740	1895, Sept. 2	ABBOTT, JOSEPH	30, Grafton Street, W., Dublin.
1499	1888, Nov. 26	ABBOTT, WILLIAM	24, Coleman Street, E.C., and Holbeach Lincoln.
2449	A. 1891, Nov. 4 F. 1895, Jan. 21	*ABRAMS, BENJAMIN PERCY ...	Bevois House, 28A, Basinghall St., E.C.
2741	1895, Sept. 2	ADAIR, JOHN OLPHERT	Ballynoe, Tullow, Co. Clare.
3171	1897, Oct. 26	ADAM, THOMAS	27, Union Street, Glasgow.
1105	1884, Feb. 25	ADAMS, HENRY, M.I.C.E.	60, Queen Victoria Street, E.C.
1504	1888, Dec. 10	ADDIE, PETER...	Market Chambers, Nicholas St., Bristo
612	1881, Feb. 21	ADDIE, WILLIAM FORRESTER ...	Powis Castle Estate Office, Welchpoo Montgomeryshire.
1439	A. 1888, Jan. 9 F. 1891, Jan. 5	*†ADKIN, BENAIAH WHITLEY ...	14, Queen Street, Cheapside, E.C.
664	A. 1881, Dec. 19 F. 1886, Nov. 8	ADKIN, CHARLES DUNCAN	Wantage, and Abingdon, Berks.
3452	1899, Feb. 16	AITKEN, JOHN MALCOLM	Castlemilk Estates Office, Norwoo Lockerbie, Dumfriesshire.
3057	1896, Oct. 28	ALCOCK, SAMUEL	Royal Engineer Office, Curragh Cam Kildare, Ireland.
2742	1895, Sept. 2	ALEXANDER, CHARLES MURRAY, LIEUT.-COL....	Termon, Carrickmore, Co. Tyrone.
2743	1895, Sept. 2	ALEXANDER, HENRY GEORGE SAMUEL MAJOR	1, Gosford Place, Armagh.
3004	1896, Jan. 21	ALEXANDER, ROBERT ARTHUR ...	Glenmore, Drogheda, Co. Louth.
1479	1888, Apr. 30	ALLEN, GEORGE	Strangways, Marnhull, Blanford, Dorse
2930	A. 1895, Oct. 21 F. 1898, Nov. 14	*ALLEN, PERCY	Warrington House, Duppas Hill, Croydo
1912	1891, Jan. 17	ALLPORT, WILLIAM	Bedford Mansions, Henrietta Stre Covent Garden, W.C.
2503	A. 1892, Nov. 28 F. 1893, Nov. 13	*AMOS, FRANK	3, The Parade, Canterbury, Kent.
2744	1895, Sept. 2	ANDERSON, ALEX. CAREW	Killmurray, Waterford.
3172	1897, Oct. 26	ANDERSON, ROBERT	95, Bath Street, Glasgow.
597	A. 1881, Jan. 10 F. 1884, Mar. 10	ANDERSON, ROBERT	The Barton, Cirencester.
1635	1889, Dec. 9	ANDREW, THOMAS HAWKES ...	Williton, Somerset.
1792	1890, May 29	ANDREWS, JOHN	13, Basinghall Street, E.C.
3342	A. 1898, Oct. 29 F. 1900, Feb. 12	*ANGEL, FRANCIS HOUGHTON ...	50, Russell Road, Kensington, W.
1634	A. 1889, Nov. 25 F. 1892, Nov. 14	*ANSCOMBE, ERNEST	8, Wellington Rd, St. John's Wood, N
198	1869, May 3	ARDING, CHARLES B., A.R.I.B.A.	22, Surrey Street, Strand, W.C.
2649	A. 1894, Oct. 30 F. 1896, Mar. 16	*ARIS, JOHN WHITTON, M.A. *(Oxon.)*	Loys Weedon House, near Towcest Northamptonshire.

† Special Sanitary Science Certificate.

ship. No.	Date of Election and of Transfer.	FELLOWS.	Address.
133	1884, Apr. 21	ARMISTEAD, RICHARD, A.M.I.C.E.	118, Main Street, Bingley, Yorkshire.
745	1895, Sept. 2	ARMSTRONG, ALEXANDER MOORE, CAPT.	Culmore House, Kilrea, Co. Londonderry.
005	1896, Jan. 21	ARMSTRONG, ELLIOTT GRAHAM, B.A. (*Dublin*)	Mount Pleasant Avenue, Co. Galway.
791	1882, Apr. 24	ARMSTRONG, THOMAS JOHN ...	14, Hawthorn Terrace, Newcastle-on-Tyne.
730	1890, Feb. 24	ARMYTAGE, SIR GEORGE, BART.	Kirklees, Brighouse, Yorkshire.
505	1888, Dec. 10	ARNOLD, FRANCIS...	Chilland, Winchester, and Hambledon, Hants.
709	1890, Feb. 10	ARNOLD, WILLIAM	23, George St., Tamworth, Staffordshire.
280	A. 1885, Dec. 7 F. 1896, Jan. 20	*ARNOTT, JOHN	Church Street, Woodbridge, Suffolk.
541	1889, Jan. 14	ASHDOWN, AUGUSTUS HARDING ...	Uppington, Wellington, Salop.
075	A. 1896, Oct. 28 F. 1898, Oct. 3	*ASHENDEN, LEONARD THOMAS ...	The Kent Fire Office, 29, Westgate, Canterbury, Kent.
151	1891, Nov. 4	AULT, EDWIN	47, Victoria Street, Westminster, S.W.
152	1891, Nov. 4	AUSTEN, FRANK	Marling Place, Wadhurst, Sussex.
793	1890, May. 29	AUSTIN, RICHARD	Bishop's Waltham, Hants.
408	A. 1887, Dec. 19 F. 1891, Oct. 15	*AUSTIN, RICHARD, JUN	Bishop's Waltham, Hants.
404	1857, Nov. 8	AUSTIN, RUSSELL GARDENER ...	Hertford.
913	1891, Jan. 17	AYNSLEY, ROBERT JOHN	Gosforth, Newcastle-on-Tyne, Northumberland.
798	A. 1882, Apr. 24 F. 1890, Apr. 14	AYRES, CHARLES PRYOR	14, High Street, Watford, Herts.
914	1891, Jan. 17	BACON, FRANK MACE	Attleborough, Norfolk.
915	1891, Jan. 17	BACON, HORACE	Attleborough, Norfolk.
140	A. 1868, Nov. 2 F. 1887, Feb. 7	BADCOCK, PHILIP	9, Whitehall Place, S.W.
767	1890, Mar. 24	BAILEY, HARRY DAVID CHINERY	Fundenhall Grange, Norwich, Norfolk.
665	A. 1881, Dec. 19 F. 1889, Nov. 11	BAILEY, LEONARD	Chartleigh, Barrow Green Rd., Oxted, Surrey.
566	A. 1893, Oct. 4 F. 1896, Feb. 17	*BAILEY, LOUIS HEWITT...	Athenæum Buildings, Friar Street, Reading, Berks.
057	1891, May 23	BAILEY, WILLIAM SMITH	4, Kirkgate, Newark-upon-Trent.
747	1895, Sept. 2	BAILLIE, JOHN ROBERT	Estate Office, Ballina, Co. Mayo.
506	1888, Dec. 10	BAINBRIDGE, ROBERT STAGG ...	Keverstone, near Staindrop, Durham.
153	1891, Nov. 4	BAINES, MATTHEW TALBOT, M.A. (*Cantab.*)	Estate Office, Wootton Bassett, Wilts.
748	1895, Sept. 2	BALDWIN, CHAMBRÉ CORCOR THOMAS	7, Leinster Street, Dublin.
690	A. 1890, Jan. 6 F. 1891, Dec. 7	*BALL, WILLIAM ALFRED	Rosslyn, Landsdowne Rd., Bromley, Kent.
479	1877, Mar. 12	BALLS, JAMES MAYHEW	Castle Hedingham, Essex.
879	A. 1890, Nov. 22 F. 1893, Nov. 13	*BANCROFT, FREDERICK HERBERT	88, Mosley Street, Manchester.
156	1891, Nov. 4	BANKS, JOHN	Kendal, Westmoreland.
916	1891, Jan. 17	BANKS, THOMAS	60, King Street, Manchester.
606	1881, Feb. 7	BANNISTER, THOMAS	Limehurst, Hayward's Heath, Sussex.
712	1882, Jan. 30	BARFIELD, FREDERIC HENRY ...	56, Lancaster Road, Stroud Green, N.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2504	A. 1892, Nov. 28 F. 1898, Nov. 14	*BARKER, GEOFFREY LIONEL ...	Kilnback, Angle, Pembroke.
1985	1891, Mar. 14	BARKER, HORACE RICHARD ...	13, Lowndes Street, Belgravia, S.W.
1661	A 1889, Dec. 9 F. 1891, June 29	*BARNES, GEORGE FREDERICK ...	Estate Office, Wingerworth Hall, near Chesterfield.
983	1883, Dec. 17	BARNES, JOHN WILLIAM JAMES...	Friar Lane, Nottingham.
3499	1899, Oct. 30	BARNES, WILLIAM ARTHUR, B.A. (*Dublin*)	Westland, Kells, Co. Meath.
1307	1886, Feb. 22	BARNES-WILLIAMS, T., F.R.I.B.A.	St. Thomas' Chambers, 24, Railway Approach, London Bridge, S.E.
3345	A. 1898, Oct. 29 F. 1899, Oct. 2	*BARNS, STEPHEN ALLEN	51, Brooke Road, Stoke Newington, N.
2157	1891, Nov. 4	BARR, JAMES, M.I.C.E.	221, West George Street, Glasgow.
3453	1899, Feb. 16	BARR, JAMES	Whiteshaw, Carluke, Lanarkshire.
2158	1891, Nov. 4	BARRATT, FREDERICK WILLIAM	The Vestry Hall, Bethnal Green, E.
2749	1895, Sept. 2	BARRINGTON, JOHN BEATTY ...	Barrington Street, Limerick.
2159	1891, Nov. 4	BARROW, THOMAS ROBERT... ...	Post Office Avenue, Southport, Lancashire.
917	1891, Jan. 17	BARRY, DENNETT HEBER	21, Old Square, Lincoln's Inn, W.C.
2058	1891, May 23	BARTON, HARRY HOWELL	17, Guildhall Street, Folkestone, Kent.
2750	1895, Sept. 2	BARTON, HENRY DUPRÉ MALKIN	The Bush, Antrim.
2562	1893, Oct. 4	BARTON, JOHN GEORGE, C.B. ...	General Valuation and Boundary Survey Office, 6, Ely Place, Dublin.
751	1895, Sept. 2	BARTON, ROBERT CULLEY	Millmount Rd., Mullingar, West Meath.
056	1884, Jan. 28	BATE, THOMAS	Salusbury House, 87, High Rd., Kilburn.
986	1891, Mar. 14	BATEY, HENRY SIMPSON	51, King Street, Manchester.
726	1882, Feb. 13	BATH, FRED., F.R.I.B.A.	Crown Chambers, Salisbury, Wilts.
918	1891, Jan. 17	BATHER, JOHN T.	9, The Square, Shrewsbury.
3454	1899, Feb. 16	BATHGATE, CHARLES S.	26, Bellgrove Street, Glasgow.
2161	1891, Nov. 4	BATSTONE, ROWLAND ROBERT ...	110, Cannon Street, E.C.
368	1887, Feb. 7	BATTAM, FREDERICK THOMAS ...	17, Hart Street, Bloomsbury, W.C., and 28, Mount St., Grosvenor Sq., W.
580	1889, Feb. 25	BATTERBURY, T., F.R.I.B.A. ...	Birkbeck Bank Chambers, Chancery Lane, W.C.
2162	1891, Nov. 4	BATTING, WALTER...	7, John Street, Adelphi, W.C.
2481	1892, Feb. 26	BAXTER, GEORGE	1, Frederick's Place, E.C., and Guildford.
1881	A. 1890, Nov. 22 F. 1898, Feb. 7	*BEADEL, MAURICE FREDERICK ...	97, Gresham Street, E.C.
2163	1891, Nov. 4	BEALE, ROBERT J., A.R.I.B.A. ...	Broadway House, The Broadway, Westminster, S.W.
2753	1895, Sept. 2	BEAMISH, WILLIAM HENRY... ...	2, South Mall, Cork.
1282	A. 1885, Dec. 7 F. 1889, Nov. 11	*BEARD, EDWIN THOMAS, A.M.I.C.E.	Marazion, West Hill, St. Leonards-on-Sea.
3292	1898, Feb. 18	BEATTIE, WILLIAM HALDEN... ...	11, Glencairn Crescent, Edinburgh.
1450	1888, Feb. 6	BEAUMONT, CHARLES	East Bridgford, near Nottingham.
2164	1891, Nov. 4	BECK, ARTHUR CLEMENT	Castle Rising, King's Lynn, and Sandringham.
1457	1888, Feb. 20	BECK, EDWARD WILLIAM	16, Bank Street, Norwich.
2165	1891, Nov. 4	BECK, FRANK REGINALD	Sandringham, Norfolk.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1561	1889, Jan. 28	BECKWITH, HENRY LANGTON ...	3, Cook Street, Liverpool.
959	A. 1883, May 25 F. 1887, May 23	*BEDELLS, CHARLES HERBERT ...	6, John Street, Bedford Row, W.C.
317	1873, Dec. 8	BEESTON, FRED., F.R.I.B.A. ...	30, Lincoln's Inn Fields, W.C.
1433	1888, Jan. 9	BEKEN, GEORGE	73, Moorgate Street, E.C.
1987	1891, Mar. 14	BEKEN, WALTER	73, Moorgate Street, E.C.
1594	A. 1889, Feb. 25 F. 1895, Dec. 9	*BELCHER, EDWARD JOHN	Wantage, Berks.
3320	1898, Oct. 29	BELL, ANDREW WALKER	Corporation Buildings, Dunfermline.
2652	A. 1894, Oct. 30 F. 1898, May 16	*BELL, HERBERT OWEN...	9, Victoria Street, S.W.
1458	1888, Feb. 20	BELL, JOSEPH ASKEW	Rufford Estate Office, Ollerton, Notts.
1662	A. 1889, Dec. 9 F. 1894, Apr. 2	*BELLINGHAM, ARCHIBALD TURNER	Cheveley Estate Office, Newmarket, Cambridgeshire.
383	1875, Mar. 1	BENNETT, THOMAS OATLEY... ...	Bruton, Somerset.
1212	A. 1884, Nov. 10 F. 1890, Dec. 8	*BENSON, ROBERT ALAN	Duchy of Cornwall Office, Liskeard, Cornwall.
1214	1884, Dec. 8	BERTWISTLE, JAMES	1, Tackett's Street, Blackburn.
984	1883, Dec. 17	BETTRIDGE, EDWARD	28, Waterloo Street, Birmingham.
2505	A. 1892, Nov. 28 F. 1894, Oct. 10	*BEVEN, SEPTIMUS	59 and 60, Chancery Lane, W.C.
1239	1885, Jan. 12	BICKERTON, GEORGE ARTHUR ...	12, Cheapside, E.C.
190	1869, Mar. 22	BIDWELL, CHAS., M.A. (*Cantab.*) (*Member of Council*)	Ely, Cambridgeshire.
2625	A. 1894, Feb. 22 F. 1896, Feb. 3	*BIDWELL, JOHN EVANS...	St. Mary's, Ely, Cambridgeshire.
3197	A. 1897, Oct. 26 F. 1900, May 21	*BIDWELL, PHILLIP SHELFORD ...	St. Mary's Street, Ely, Cambridgeshire
3037	1896, June 2	BIGGER, JOHN JAMES EASTWOOD	Fairymount, Dundalk, Ireland.
3327	1898, Oct. 29	BILLINGHAM, JOHN ALFRED LAWRANCE	Royal Engineer Office, Shorncliffe Camp, Kent.
2167	1891, Nov. 4	BILSON, JOHN, F.R.I.B.A.	23, Parliament Street, Hull.
2059	1891, May 23	BINGHAM, ALFRED JOHN	Nalder Hill House, Newbury, and 5, Bolton Street, Piccadilly, W.
1919	1891, Jan. 17	BINGHAM, FREDERICK HENRY ...	5, Bolton Street, Piccadilly, W.
396	1875, Apr. 12	BINGHAM, REUBEN	5, Bolton Street, Piccadilly, W.
131	1868, Oct. 26	BINNIE, THOMAS	207, Hope Street, Glasgow.
3321	1898, Oct. 29	BINNIE, THOMAS, JUN....	207, Hope Street, Glasgow.
2569	A. 1893, Oct. 4 F. 1895, Apr. 29	*BIRCH, RICHARD ELWYN, B.A. (*Cantab.*)	Stonehouse, Chester.
1330	A. 1886, Dec. 6 F. 1889, Nov. 11	*BIRCH, WALTER DE HOGHTON ...	Hoghton Estate Office, Walton Hall, Preston, Lancashire.
1490	1888, Nov. 12	BIRD, JAMES BINFIELD...	West Cowes, Isle of Wight, & 28, Queen Street, E.C.
1636	1889, Dec. 9	BIRD, JOHN	Brampton, Huntingdon.
1154	1884, May 5	BIRD, WALTER	61, Edgware Road, W.
1351	A. 1887, Jan. 10 F. 1889, Feb. 25	BIRKETT, TOM	Foxton House, Penrith, Cumberland.
1794	1890, May 29	BISHOP, CHARLES	Regent Circus, Swindon, Wilts.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2563	1893, Oct. 4	*BLACKBOURN, HENRY	6, Queen Anne's Gate, S.W.
1326	1886, Dec. 6	BLACKFORD, ARTHUR	61 and 62, Chancery Lane, W.C.
2754	1895, Sept. 2	BLACKLEY, TRAVERS ROBERT ...	Drumbar, Cavan, Ireland.
3455	1899, Feb. 16	BLAIR, ALEXANDER	198, West George Street, Glasgow.
3200	A. 1897, Oct. 26 F. 1898, June 6	*†BLAKE, EDWIN HOLMES	82, Victoria St., & 27, Gt. George St., S.W.
1262	1885, Mar. 23	BLAKE, FREDERICK	130, Queen Street, Portsea, Hants.
2168	1891, Nov. 4	BLAKE, GEORGE	Stradey Estate Office, New Rd., Llanelli
883	1883, Feb. 12	BLAKE, WILLIAM JOHN, JUN. ...	45, High Street, Croydon.
773	1882, Mar. 13	BLAKEMORE, WILLIAM AGUTTER	6, Duke Street, Adelphi, W.C.
2755	1895, Sept. 2	BLAKENEY, ROBERT EDWARD ...	Creg Clare, Ardrahan, Co. Galway.
1057	1884, Jan. 28	BLASHILL, THOMAS, F.R.I.B.A. (*Member of Council*)	29, Tavistock Square, W.C.
2169	1891, Nov. 4	BLENCOWE, GEORGE	Bury St. Edmunds.
2170	1891, Nov. 4	BLETSOE, HENRY HOPKINSON ...	Thrapston, Northamptonshire.
1988	1891, Mar. 14	BLIZARD, JOHN HY., A.M.I.C.E.	Lansdowne House, Castle Lane, Southampton.
511	A. 1878, May 13 F. 1887, Mar. 7	BLOSSE, EDWARD F. LYNCH ...	Charles Street Chambers, Cardiff.
3154	A. 1897, Feb. 17 F. 1900, May 21	*BLUNT, MONTAGUE CECIL	8, Westbourne Crescent, Hyde Park,
2171	1891, Nov. 4	BLYTON, GEORGE	16, The Hawthorns, Church En Finchley, N.
768	A. 1882, Feb. 27 F. 1889, Nov. 11	BOA, ANDREW...	Great Thurloe, Newmarket, Suffolk.
1882	A. 1890, Nov. 22 F. 1893, Aug. 9	*BODY, ARTHUR, A.R.I.B.A. ...	Princess Chambers, Princess Squa Plymouth, Devon.
1452	1888, Feb. 6	BODY, JOHN BOND...	Princess Chambers, Princess Squa Plymouth.
330	1874, Feb. 2	BOLAM, CHARLES GODFREY ...	Estate Office, Boughton House, Kett ing, Northamptonshire, and 82 & Palace Chambers, S.W.
450	1876, May 8	BOLAM, WILLIAM THOMAS	Cross House, Westgate Rd., Newcas upon-Tyne.
408	1875, Dec. 13	BOLDEN, JOHN LEONARD, M.A. (*Cantab.*)	Duchy of Lancaster Office, Lancas Place, W.C.
2060	1891, May 23	BOND, DOUGLAS VALE	22, Surrey Street, Strand, W.C.
199	1869, May 3	BOND, ERASMUS	Combe Lodge, Kingston Hill, Surrey.
813	1882, May 22	BOOKER, ALGERNON ERSKINE ...	Albion House, Hyde Park Square, W.
3502	1899, Oct. 30	*BOOKER, FRANK WILLIAM	7, Albion Chambers, King St., Notting
2653	A. 1894, Oct. 30 F. 1895, Nov. 1	*BOOTH, GILBERT WILLIAM	3, Adelaide Street, Charing Cross, W
2172	1891, Nov. 4	BOOTHBY, HENRY VERNON	Estate Office, Keele, Newcastle, Staffi shire.
632	1881, Dec. 19	BOTTERILL, WILLIAM	23, Parliament Street, Hull.
1883	A. 1890, Nov. 22 F. 1891, June 29	*BOULTING, FREDERICK EDWARD...	Napier Lodge, Minster, Kent.
1795	1890, May 29	BOURNE, ROBERT ELLIOTT	Elwell, Totnes, Devon.
1507	1888, Dec. 10	BOWDEN, JOHN	14, Ridgefield, Manchester.
134	A. 1891, May 23 F. 1899, Nov. 13	*BOWDEN, JOHN FRIENDSHIP ...	Bedford Chambers, Exeter, Devon.

† Special Sanitary Science Certificate.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2173	1891, Nov. 4	BOWDICH, JOHN	24, Coleman Street, E.C.
1777	1890, Apr. 14	BOWDITCH, HENRY	103, George Street, Croydon.
3031	1896, June 2	BOWEN, EDWARD FERGUSON ...	Glendine, Arthurstown, Co. Waterford.
1778	1890, Apr. 14	BOWLEY, JOHN CROSS	Norman Terrace, Hastings.
1491	1888, Nov. 12	BOWMAN, JOHN JAMES...	Estate Office, Netherby, Carlisle.
3185	1897, Oct. 26	BOXSHALL, HENRY EDWIN	Horse Guards, Whitehall, S.W.
1685	1890, Jan. 6	BOYD, JOHN JERMYN	Heath View, Weybridge, Surrey, and 125, Piccadilly, W.
2756	1895, Sept. 2	BOYD, WILLIAM HENRY	Ballymacool, Letterkenny.
1476	1888, Apr. 16	BOYES, HY. COWELL, F.R.I.B.A....	Ormond House, Great Trinity Lane, Queen Victoria Street, E.C.
1325	1886, Nov. 22	BRACKETT, ARTHUR WILLIAM ...	27, High Street, Tunbridge Wells, Kent.
1884	A. 1890, Nov. 22 F. 1892, May 30	*BRACKETT, FREDERICK HENRY ...	27, High Street, Tunbridge Wells, Kent.
870	1883, Jan. 29	BRACKETT, WILLIAM	27, High Street, Tunbridge Wells, Kent.
2654	A. 1894, Oct. 30 F. 1895, July 29	*BRADLEY, JAMES WILLIAM, A.M.I.C.E.	Borough Engineer's & Surveyor's Office, Town Hall, Wolverhampton.
2175	1891, Nov. 4	BRADLEY, WILLIAM EDWARD ...	The Hall, Ebberston, York.
2571	A. 1893, Oct. 4 F. 1897, Feb. 8	*BRADSHAW, HARRY GREAVES ...	28, Barton Arcade St., Ann's Sq., Manchester.
2757	1895, Sept. 2	BRADSHAW, ROBERT MACNEVIN	25, South Frederick Street, Dublin.
1562	1889, Jan. 28	BRADY, CHARLES ALLDIS	17, Warren Street, Stockport, Cheshire.
1524	A. 1888, Dec. 10 F. 1893, Nov. 13	*BRADY, RALPH HOLLINSHED ...	78, Cross Street, Manchester.
1989	1891, Mar. 14	BRADY, WILLIAM HOLLINSHED ...	17, Warren Street, Stockport, Cheshire.
1397	1887. Dec. 5	BRAILSFORD, HENRY	Park Nook, near Derby.
1441	1888, Jan. 23	BREACH, BENJAMIN I'ANSON ...	29, Fleet Street, E.C.
2924	1895, Oct. 24	*BREEDS, ARTHUR OWEN	62, Lincoln's Inn Fields, W.C.
727	1882, Feb. 13	BRERETON, FRANC S., F.R.I.B.A.	292, High Holborn, W.C.
2176	1891, Nov. 4	BRERETON, THOMAS BLOOMFIELD SADLEIR	292, High Holborn, W.C.
1920	1891, Jan. 17	BREWER, FRANK JOHN, F.R.I.B.A.	2, Upper Hill Street, Richmond, Surrey
1921	1891, Jan. 17	BRIANT, ROBERT	200, Kennington Park Road, S.E.
2758	1895, Sept. 2	BRIDGE, HENRY POWELL	Racket Hall, Roscrea, Tipperary.
829	1882, Dec. 18	BRIDGEWATER, BENTLEY JAMES	80, Cheapside, E.C.
1370	1887, Feb. 21	BRIDGFORD, ERNEST JAMES ...	28, Cross Street, Manchester.
1309	1886, Mar. 8	BRIDGFORD, COL. ROBERT, C.B.	28, Cross Street, Manchester.
3080	A. 1896, Oct. 28 F. 1900, Feb. 12	*BRIGHTON, GEORGE LAWRENCE	6, Challoner Mansions, Challoner Street, West Kensington, W.
2506	A. 1882, Nov. 28 F. 1896, Jan. 6	*BRINKWORTH, ROBERT EDWIN ...	St. Mary's Street, Chippenham, Wilts.
2655	A. 1894, Oct. 30 F. 1899, Mar. 20	BRINSLEY, HERBERT GEORGE WILLIAM	30 and 31, New Bridge Street, E.C.
2759	1895, Sept. 2	BROADLEY, EDWARD BARRY ...	73, South Mall, Cork.
2177	1891, Nov. 4	BROCKLEBANK, JOHN	58A, Yorkshire Street, Rochdale, and Crossbrook, Todmorden, Lancashire.
2178	1891, Nov. 4	BRODRICK, FREDERICK STEAD ...	Cogan Chambers, Bowl Alley Lane, Hull

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2760	1895, Sept. 2	BROOKE, ARTHUR	White House, Killybegs, Co. Donegal.
1990	1891, Mar. 14	BROOKS, CHARLES W., A.R.I.B.A.	63, Finsbury Pavement, E.C.
2938	A. 1895, Oct. 24 F. 1897, Nov. 8	*BROOKS, JOHN MCMULLEN	4, Queen Victoria Street, E.C.
2939	A. 1895, Oct. 24 F. 1899, Mar. 20	*BROOKS, PHILIP FULLER	82, Brixton Hill, S.W.
1834	1890, Nov. 22	BROSTER, ROBERT BUCK	Craven Bank Chambers, North Sttree Keighley.
2135	A. 1891, Nay 23 F. 1893, May 29	*BROWN, ALEXANDER BURNETT ...	Amberley House, Norfolk St., Strand.
1664	A. 1889, Dec. 9 F. 1895, Mar. 18	*BROWN, ARTHUR MACDONALD, B.A. (*Cantab.*)	Tring, Herts.
3456	1889, Feb. 16	BROWN, CHARLES	Kerse Estate Office, Falkirk, Stirlingshi
1500	1888, Nov. 26	BROWN, FRANK JOHN	Tring, Herts.
3457	1899, Feb. 16	BROWN, GEORGE	Hilton of Culsh, New Deer, Aberdeenshi
634	1881, Dec. 19	BROWN, GEORGE JAMES	34, Great George Street, S.W.
2507	A. 1892, Nov. 28 F. 1899, Jan. 23	*BROWN, GEORGE TURVILLE... ...	34, Great George Street, S.W.
933	1883, Apr. 30	BROWN, JOHN POWLES...	21, East Street, Hereford.
173	1869, Feb. 22	BROWN, THOMAS FORSTER, M.I.C.E.	Guildhall Chambers, Cardiff.
2061	1891, May 23	BROWN, WILLIAM	138, West Regent Street, Glasgow.
2761	1895, Sept. 2	BROWNE, ERNEST H.	Brookfield, Tullamore.
1142	A. 1884, Apr. 21 F. 1890, Apr. 14	BROWNE, FLINT	30, Watling Street, E.C.
2762	1895, Sept. 2	BROWNLOW, CHARLES	Mountstewart, Newtownards, Co. Dow
2763	1895, Sept. 2	BROWNLOW, CLAUDE	Estate Office, Coolderry, Carrickmacro Co. Monaghan.
1046	A. 1884, Jan. 14 F. 1890, Mar. 24	BRUCE, ROBERT KNIGHT	Hathersage, by Sheffield.
2482	1892, Feb. 26	BRUTON, HENRY WILLIAM	Albion Chambers, Gloucester.
3500	1899, Oct. 30	BRYANT, GEORGE HERBERT ...	Royal Engineer Office, Hong Kong, Chi
2180	1891, Nov. 4	BRYDEN, ROBERT A., F.R.I.B.A.	212, St. Vincent Street, Glasgow.
1291	1886, Jan. 11	BRYDON, ROBERT	The Dene, Seaham-Harbour, Durham.
77	1868, July 13	BUCK, ALBERT (*Member of Council*)	Worcester.
1542	1889, Jan. 14	BUCK, HERBERT WILSON	Pierpoint Street, Worcester.
1428	A. 1885, Dec. 7 F. 1889, Jan. 14	*BUCKLAND, ALFRED VIRGOE ...	8, Frederick's Place, Old Jewry, E.C.
270	1871, Dec. 18	BUCKLAND, FRANK BOWRY... ...	Windsor.
1468	1890, Jan. 6	BUCKLAND, HENRY DUNEAU ...	4, Bloomsbury Sq., W.C., and Windso
2136	A. 1891, May 23 F. 1894, Oct. 10	*BUCKLAND, SIDNEY CRAWFORD...	Windsor, Berks.
1835	1890, Nov. 22	BUCKLEY, GEORGE	Tower Chambers, Halifax, Yorkshire.
2181	1891, Nov. 4	BULL, ALFRED EDWIN	35, Craven Street, Charing Cross, W.
2182	1891, Nov. 4	BULL, WALTER	35, Old Jewry, E.C.
1922	1891, Jan. 17	BURCHELL, SIDNEY HERBERT ...	Reigate, Surrey, & Wool Exchange, E
1543	1889, Jan. 14	BURD, TIMOTHEUS HENRY	School Gardens, Shrewsbury.
2764	1895, Sept. 2	BURKE, HENRY ANTHONY	Drumkeen, Ballinamallard, Co. F managh.

Date of Election and of Transfer.	FELLOWS.	Address.
1895, Sept. 2	BURKE, WILLIAM CREAGHE ...	Clonne, Ballinrobe, Co. Mayo.
1890, May 29	BURMESTER, JOHN WILLIAM STANLEY, F.R.I.B.A.	30, Lincoln's Inn Fields, W.C.
1891, Nov. 4	BURNET, FRANK	180, Hope Street, Glasgow.
1890, May 29	BURNETT, ALFRED ANDREW ...	2, High Street, Southampton.
1881, Dec. 19	BURNETT, DAVID	14, Nicholas Lane, E.C.
1889, May 13	‡BURNETT, GEORGE JOHN MULCASTER...	Elstree Cottage, Elstree, Herts.
C.F. '96, June 2 F. 1897, June 28	BURNS, GAVIN JAS., B.Sc. (*Lond.*)	Royal Engineer Office, The Nothe, Weymouth.
1875, Feb. 1	BURROUGHES, THOMAS HENRY ...	30, Lincoln's Inn Fields, W.C., and 16, Lower Berkeley Street, W.
A. 1886, Dec. 6 F. 1890, Jan. 6	*BURROWS, ALFRED JOHN	41, Bank Street, Ashford, Kent.
1884, Dec. 8	BURTENSHAW, ALBERT...	Hailsham, Sussex.
A. 1895, Oct. 24 F. 1897, Jan. 11	*BURTON, AMOS, A.M.I.C.E.	Borough Engineer's Office, Hanley, Staffs.
A. 1887, Dec. 19 F. 1891, May 25	*BUSHELL, HENRY	33, New Bridge Street, E.C.
A. 1894, Oct. 30 F. 1899, Nov. 13	*BUTLER, ALBERT ERNEST	20, Blagrave Street, Reading, Berks.
A. 1897, Oct. 26 F. 1900, May 21	*BUTLER, CHARLES	14, Queen Street, Huddersfield.
1895, Sept. 2	BUTLER, WALTER SELBY	GreenMountCastleBellingham, Co. Louth.
1874, Jan. 5	BUZZARD, ALFRED LINDSEY ...	22, Surrey Street, Strand, W.C.
1889, Dec. 9	BYRON, AUGUSTUS WILLIAM ...	Sutton Estate Offices, Duckmanton, Chesterfield, & 16, Gt. George St., S.W.
1891, Nov. 4	CABLE, JAMES M., A.R.I.B.A. ...	56, Ludgate Hill, E.C.
1889, Dec. 9	CÆSAR, CHARLES EDWARD... ...	105, Tooley Street, Southwark, S.E.
1891, Nov. 4	CALVERT, ARTHUR RICHARD ...	14, Low Pavement, Nottingham.
1890, May 29	CAMPBELL, HENRY HUNTER ...	Sutton Hall, St. Helen's, Lancashire.
1887, Mar. 7	CANNING, WILLIAM BROWNE ...	Salisbury.
A. 1882, Mar. 27 F. 1884, Jan. 14	CARD, HENRY CURTIS	North Street, Lewes, Sussex.
1892, Feb. 26	CARDONA, JOSEPH, JUN.	Waterport Street, Gibraltar.
1890, May 29	CAREW, JOHN THEODORE	22, Surrey Street, Strand, W.C.
A. 1894, Oct. 30 F. 1899, Jan. 23	*CARNELL, SYDNEY GEORGE... ...	Estate Office, Condover, Shrewsbury.
A. 1882, Apr. 24 F. 1883, Jan. 15	CARPENTER, EVAN GEORGE ...	45, High Street, Croydon, Surrey.
A. 1897, Oct. 26 F. 1898, Oct. 3	*CARPMAEL, HAROLD	30A, Lincoln's Inn Fields, W.C.
A. 1870, Feb. 7 F. 1880, Nov. 22	CARRITT, ERNEST, A.R.I.B.A. ...	57, Lincoln's Inn Fields, W.C.
1895. Sept. 2	CARROLL, JOSEPH HATTON	80, South Mall, Cork.
1895, Sept. 2	CARROLL, THEODORE FREDERICK	80, South Mall, Cork.
1895, Sept. 2	CARSON, WILLIAM B.	Bedford House, Balbriggan, Co. Dublin.
1891, Nov. 4	CARSWELL, WILLIAM	Capesthorne, Chelford, Cheshire.
A. 895, Oct. 24 F. 1898, Nov. 14	*CARTWRIGHT, ALFRED STOTT ...	Council Office, Wilmslow, Cheshire.

‡ Special Forestry Certificate.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2188	1891, Nov. 4	CARTWRIGHT, JOSHUA, M.I.C.E.	Peel Chambers, Bury, Lancashire.
1991	1891, Mar. 14	CASTELL, CHARLES SMITH	2, Pont Street, Belgrave Square, S
1603	1889, Mar. 18	CASTLE, ARTHUR	11, King Edward Street, Oxford.
2137	A. 1891, May 23 F. 1894, Nov. 12	*CASTLE, HAROLD	11, King Edward Street, Oxford.
637	1881, Dec. 19	CASTLE, HENRY JAMES...	37, Bedford Row, W.C.
1201	A. 1884, May 26 F. 1887, Nov. 14	CASTLE, SYDNEY CHARLES COURTENAY	40, Chancery Lane, W.C., and Neus Auckland Road, Upper Norwood,
278	1872, Mar. 11	CASTLE, WILLIAM HENRY BALDWIN	40, Chancery Lane, W.C.
247	1870, Dec. 12	CATES ARTHUR, F.R.I.B.A.	12, York Terrace, Regent's Park, N
362	1875, Jan. 4	CAVE, HENRY H.	Estate Office, Rugby, Warwickshir
1480	1888, Apr. 30	CAVE, THOMAS NEWMAN	Horton, Northamptonshire.
1836	1890, Nov. 22	CHALK, HENRY PHILIP	Linton, Cambridgeshire.
2660	A. 1894, Oct. 30 F. 1896, Feb. 17	*CHAMBERS, THEODORE GERVASE	4, Bloomsbury Place, W.C.
3155	A. 1897, Feb. 17 F. 1899, June 26	*CHAMBERLAIN, GEORGE ARTHUR RADDON	Leamington House, Malvern Wells
1061	1884, Jan. 28	CHANCELLOR, ALBERT	1, King Street, Richmond, Surrey, 51, Pall Mall, S.W.
219	1870, Jan. 10	CHANCELLOR, FRED., F.R.I.B.A.	20, Finsbury Circus, E.C., and Che ford, Essex.
3147	1897, Feb. 17	CHAPMAN, GEORGE JAMES	Royal Engineer Office, Hong Kong,
2189	1891, Nov. 4	CHAPMAN, HENRY JAMES	50, Belgrave Road, S.W.
1800	1890, May 29	CHARLES, RICHARD STAFFORD ...	St. Martin's House, 1, Gresham St
1768	1890, Mar. 24	CHART, ROBERT MASTERS	The Vestry Hall, Mitcham, Surrey
2190	1891, Nov. 4	CHASEMORE, PHILIP	Ashley, Horsham, Sussex.
1923	1891, Jan. 17	CHATTELL, DAVID JAMES	29A, Lincoln's Inn Fields, W.C.
2191	1891, Nov. 4	CHATTERTON, GEO., M.I.C.E. ...	6, The Sanctuary, Westminster, S.
2771	1895, Sept. 2	CHATTERTON, ROBT. SMITH ...	Belmont, Raheney, Co. Dublin.
1274	1885, Nov. 23	CHESTERTON, EDWARD...	22, Lower Phillimore Place, Kensi W., and 51, Cheapside, E.C.
1755	1890, Mar. 10	CHESTERTON, SIDNEY RAWLINS ...	22, Lower Phillimore Place, Kensi W., and 51, Cheapside, E.C.
1135	1884, Apr. 21	CHESTON, CHESTER	Dashwood House, New Broad Stree
1992	1891, Mar. 14	CHESTON, HORACE, F.R.I.B.A. ...	5, Union Court, Old Broad Street,
2192	1891, Nov. 4	CHETWOOD, STEPHEN	Waltham Abbey, Essex.
2193	1891, Nov. 4	CHEW, HENRY VICTOR...	35, Great St. Helen's, E.C.
1731	1890, Feb. 24	CHILD, FRED	65 and 66, Chancery Lane, W.C., Station Road, New Barnet.
3058	1896, Oct. 28	CHILD, HENRY JOHN	Royal Engineer Office, Sheerness- Kent.
57	1868, Jul. 6	CHINNOCK, FREDERICK GEORGE	11, Waterloo Place, S.W.
1112	A. 1884, Feb. 25 F. 1891, June 29	CHRISTY, ARCHIBALD ERNEST ...	12, Great St. Helen's, E.C., Market Buildings, Chelmsford,
1347	1887, Jan. 10	CLARE, EDWARD LOVELL	Prudential Buildings, Bradford, Friar Lane, Leicester.

Date of Election and of Transfer.	FELLOWS.	Address.
1892, Feb. 26	CLARK, JOHN MCCLARE	Haltwhistle & Hexham, Northumberland.
1889, Dec. 9	CLARK, NATHANIEL	Beamish Park, Chester-le-Street, Co. Durham.
1882, Jan. 16	CLARK, SAMUEL	8, New Cavendish Street, W.
1882, Jan. 16	CLARKE, ALFRED DUDLEY	Estate Office, Abberley, Stourport, Worcestershire.
1890, May 29	CLARKE, CHRISTOPHER	Charlcot, Bedale, Yorkshire.
1891. Mar. 14	CLARKE, GEORGE ERNEST	12, Coleman Street, E.C.
A. 1884, Jan. 2 F. 1886, Jan. 11	CLARKE, HOWARD CHATFEILD ...	63, Bishopgate Street Within, E.C.
1888, Dec. 10	CLARKE, JOHN WILLIAM	Guisborough, Yorkshire.
A. 1883, Dec. 17 F. 1889, Nov. 11	CLARKE, PERCY HENRY	2, Lancaster Place, W.C.
1891, Jan. 17	CLARKE, STANLEY CHATFEILD ...	202, Bishopsgate Street Without, E.C.
1891, Nov. 4	CLARKSON, JOHN, F.R.I.B.A. ...	Ormond Chambers, 28, Gt. Ormond St., W.C.
1890, Nov. 22	CLARKSON, WILLIAM	136, High Street, Poplar, E.
1890, Jan. 6	CLIFTON, JAMES EDWARD, F.R.I.B.A.	Swanage, Dorset.
A. 1884, Mar. 10 F. 1889, Jan. 28	CLIFTON, WILLIAM EDWARD, F.R.I.B.A.	7, East India Avenue, Leadenhall St., E.C.
1890. Jan. 27	CLOUGH RICHARD CHARLES BUTLER	Ty Maur, Denbigh, North Wales.
1886, Mar. 8	CLOUGH-TAYLOR, HORACE GEO. ...	39, Friar Lane, Leicester.
A. 1868, Jul. 13 F. 1875, May 10	CLUTTON, JOHN HENRY	9, Whitehall Place, S.W.
A. 1868, Jul. 6 F. 1874, Apr. 13	CLUTTON, RALPH	9, Whitehall Place, S.W.
A. 1870, Jan. 10 F. 1875, Dec. 13	CLUTTON, RALPH WILLIAM	Hartswood, Reigate, Surrey.
1868, Jul. 13	CLUTTON, ROBERT GEORGE	9, Whitehall Place, S.W.
1869, Jan. 11	CLUTTON, WILLIAM JAMES	The Mount, York, and The Castle, Cockermouth.
A. 1885, Dec. 7 F. 1894, May. 28	*COALES, HERBERT GEORGE A.M.I.C.E.	Market Harborough Local Board Offices, Market Harborough.
1882, Jan. 30	COBB, HERBERT MANSFIELD ...	Higham, Kent, and 53, Lincoln's Inn Fields, W.C.
1889, Jan. 14	COBHAM, CHARLES	"The Shrubbery," Gravesend, Kent, and Local Board Office, Grays, Essex.
A. 1890, Nov. 22 F. 1894, Apr. 16	*COBHAM, GEORGE WILLIAM ...	1 & 3, Edwin Street, Gravesend, Kent.
1896. Jan. 21	COCHRANE, JOHN	Combermore, Lifford, Co. Donegal.
1891, Nov. 4	COCKS, SAMUEL ROGER	5, St. Thomas' St., Ryde, Isle of Wight.
1896, Oct. 28	COLEMAN, THOMAS EVERIT... ...	Royal Engineer Office, Gosport, Hants.
1890, Nov. 22	COLES, SAMUEL HOOD COWPER ...	Penmyarth, Crickhowell, S. Wales.
A. 1882, Feb. 27 F. 1884, Feb. 11	COLGATE, THOMAS...	Sheffield Park, Uckfield, Sussex.
1890, Feb. 10	COLLIER, RICHARD JAMES	Suffolk House, Cannon Street, E.C.
1891, Nov. 4	COLLIER, WALTER HENRY	130, Strand, W.C.
A. 1887, Dec. 19 F. 1891, Feb. 2	COLLINGHAM, JOHN CYRIL LEES	6, Mount Street, W.
1898, Oct. 29	COLLINS, CHARLES EDWIN	Royal Engineer Office, Colchester, Essex.
1868, Aug. 17	COLLINS, HENRY HYMAN, F.R.I.B.A.	61, Old Broad Street, E.C.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
3083	A. 1896, Oct. 28 F. 1900, May 21	*COLLINS, HORACE	5, Randolph Road, W.
826	A. 1882, Dec. 4 F. 1891, Jan. 19	COLLINS, MARCUS E.	61, Old Broad Street, E.C.
1925	1891, Jan. 17	COLYER, FREDERICK, M.I.C.E. ...	14, Victoria Street, S.W.
3186	1897, Oct. 26	COMBER, PATRICK FORSTALL, M.I.C.E.	19, Lower Leeson Street, Dublin.
1501	1888, Nov. 26	COMBES, CYRUS	Tisbury, Wilts, and Misterton, kerne, Somerset.
2062	1891, May. 23	COMMIN, FREDERICK JAMES ...	7, Bedford Circus, Exeter.
1926	1891, Jan. 17	CONDER, ALFRED, F.R.I.B.A ...	Palace Chambers, 9, Bridge Street
3174	1897, Oct. 26	CONNOR, GEORGE HARRY ADAMS	Estates Office, Longniddry, N.B.
1564	1889, Jan. 28	COOKE, HENRY	25, Watts Avenue, Rochester, Ken
2627	A. 1894, Feb. 23 F. 1897, May 31	*COOPER, ALFRED WILLIAM	10, Dingwall Road, Croydon, S.E.
1172	1884, May 19	COOPER, ARTHUR LESLIE	17, Friar Street, Reading.
2199	1891, Nov. 4	COOPER, GEORGE WARREN	34, Hart Street, Bloomsbury, W.C.
715	1882, Jan. 30	COOPER, JOHN GROVES...	Bideford, Devon.
1927	1891, Jan. 17	COOPER, JOHN ROBERT...	35, Old Jewry, E.C., and Queen's I West End Lane, W. Hampstead,
2773	1895, Sept. 2	COOTE, ORLANDO ROBERT	Auburn, Athlone.
2772	1895, Sept. 2	COOTE, STANLEY VICTOR, M.A. (*Oxon.*)	The Orchard House, Wargrave, Be Carrowroe Pk., Roscommon, Ire
1966	A. 1891, Jan. 17 F. 1895, Jan. 21	*COPE, HENRY JAMES	100, Jermyn Street, St. James's, S
2200	1891, Nov. 4	COPLAND, WILLIAM ROBERTSON, M.I.C.E.	146, West Regent Street, Glasgow
1597	1889, Mar. 4	CORBETT, EDWIN WORTLEY MONTAGU	Bute Estate Office, Castle St., Can
2202	1891, Nov. 4	CORBY, JOSEPH BOOTHROYD ...	15, All Saints' Place, Stamford, Linco
2453	A. 1891, Nov. 4 F. 1892, May 30	*CORDEROY, ATHELSTANE	12, George Street, Plymouth, Devo 21, Queen Anne's Gate, S.W.
1581	1889, Feb. 25	CORDEROY, GEORGE	21, Queen Anne's Gate, S.W.
2774	1895, Sept. 2	CORDNER, CLEMENT KENNEDY ...	Estate Office, Antrim.
3330	1898, Oct. 29	*COTTERELL, ALBERT PLAYER ISAAC	Scottish Buildings, 28, Baldwin S Bristol.
926	A. 1883, Apr. 16 F. 1889, Nov. 11	COUCHMAN, HENRY BOTELER ...	Moor Park Estate Office, Rich worth.
934	1883, Apr. 30	COUCHMAN, ROBERT EDWARD ...	35, Paradise Street, Birmingham.
2203	1891, Nov. 4	COULSON, WILLIAM LINDSAY ...	2, Rosebery Villas, Avenue Road, fields.
556	1880, Jan. 5	COVERDALE, FREDERICK JOHN ...	Ingatestone Hall, Essex.
728	1882, Feb. 13	COVERDALE, HENRY	11, St. Helen's Place, E.C.
1840	1890, Nov. 22	COWGILL, BRIAN BOLLANS HIRD...	13A, Piece Hall Yard, Bradford.
1732	1890, Feb. 24	COX, EDWARD SAMUEL...	3, New Street, York.
3087	A. 1893, Oct. 28 F. 1900, May 21	*COX, WALTER THEODORE	Belmont, College Road, Maidstone
2204	1891, Nov 4	CRANFIELD, WILLIAM BATHGATE	6, Poultry, E.C.
159	1869, Jan. 25	CRAWTER, JOHN	Cheshunt, Herts.
961	A. 1883, May 25 F. 1888, Nov. 26	CRAWTER, JOHN, JUN.	41, Bedford Row, W.C., and Cha Herts.

Date of Election and of Transfer.	FELLOWS.	Address.
1896, Jan. 21	CREAGH, ARTHUR GETHIN	Mallow, Co. Cork.
1897, Oct. 26 1899, May 29	*CRESWELL, WILLIAM THOMAS ...	Barrack Reconstruction Office, Colchester, Essex.
1869, Jan. 25	CRICKMAY, GEORGE RACKSTROW, F.R.I.B.A.	13, Victoria St., S.W., and St. Thomas Street, Weymouth.
1889, Dec. 9	CRICKMAY, JOHN EDWARD	Weymouth, Dorset.
1891, Nov. 4 1896, Jan. 6	*CRIER, JOHN THOMAS	Ingleside, Castelnau, Barnes, Surrey.
1891, Nov. 4	CROCKETT, EDWIN ARTHUR BRASSEY	Bush Lane House, Cannon Street, E.C.
1881, Feb. 7 1890, Feb. 24	CROFTS, EWAN NEVILE...	Caythorpe, Grantham, Lincolnshire.
1882, Feb. 13	CRONK, EDWYN EVANS	12, Pall Mall, S.W., & Sevenoaks, Kent.
1882, Feb. 13	CRONK, FRANK	12, Pall Mall, S.W., & Sevenoaks, Kent.
1883, Jan. 29	CRONK, WILLIAM HENRY	Sevenoaks, Kent.
1895, Sept. 2	CROSBIE, JAMES DAYROLLES ...	Gurtenard, Listowel, Co. Kerry.
1891, May 23 1898, May 16	*CROSS, ARNOLD CHARLES MARTIN	9, Victoria Street, S.W.
1876, Jan. 10	CROSS, JOHN	77, King Street, Manchester.
1890, Mar. 10	CROSS, WILLIAM HASLAM	77, King Street, Manchester.
1891, Nov. 4	CROWTHER, JOHN HERBERT ...	38, New Street, Huddersfield.
1895, Oct. 24 1899, Oct. 2	*CROWTHER, KESTON NELSON ...	"Holwood," 29, Macaulay Rd., Clapham Common, S.W.
1891, Nov. 4	CRUWYS, ROBERT...	Bank Chambers, 465, Brixton Rd., S.W.
1897, Oct. 26	CULLEN, ALEXANDER	Clyde Street, Motherwell, N.B.
1898, Oct. 29 1899, Dec. 11	*CULVERHOUSE, CECIL GOLDAR FEARN	9, Whitehall Place, S.W.
1891, Jan. 17	CUMBERLAND, EDWARD ANTHONY	Luton and Leighton Buzzard.
1899, Feb. 16	CUNNINGHAM, ROBERT...	Glen Douglas, Jedburgh, Roxburghshire.
1868, June 15	CURREY, HENRY, F.R.I.B.A. ...	37, Norfolk Street, W.C.
1889, Jan 28	CURREY, PERCIVALL, F.R.I.B.A...	37, Norfolk Street, W.C.
1899, Feb. 16	CURROR, JOHN FORTUNE	74, George Street, Edinburgh.
1887, Mar. 21	CURRY, HENRY JOHN	58, High Street, Stockton-on-Tees.
1880, Dec. 13	CURTIS, CHARLES EDWARD... ...	Moor View, Setley, Brockenhurst, Hants., & 26, Gledstanes Rd., West Kensington.
1877, Apr. 16	CURTIS, ROBERT LEABON	119 and 120, London Wall, E.C.
1891, Nov. 4	CUXSON, GEORGE AUSTIN PRYCE, A.R.I.B.A.	5, Duke Street, Adelphi, W.C.
1881, Dec. 19	DALLAS, EDWIN STUART	34, Great James St., Bedford Row, W.C.
1883, Dec. 17	DANIEL, HARRY AUGUSTUS HOOD	Hill End, Henbury, near Bristol.
1882, Feb. 13	DANN, HENRY...	Dartford, Kent.
1898, Feb. 18	DANSKEN, ALEXANDER BROWN ...	105, West George Street, Glasgow.
1891, Nov. 4	DANSKEN, JOHN	241, West George Street, Glasgow.
1889, Dec. 9 1891, Apr. 6	*DARCH, JOHN	74, Sarsfeld Road, Balham, S.W.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2778	1895, Sept. 2	DARLEY, EDMUND SANDERS... ...	5, College Green, Dublin.
2777	1895, Sept. 2	DARLEY, HENRY PONSONBY SHAW	Estate Office, Carrick-on-Shannon, Leitrim.
907	A. 1883, Feb. 26 F. 1891, May 25	DASH, ROLAND ASHFORD	9, Whitehall Place, S.W., and Walto Thames.
1527	A. 1888, Dec. 10 F. 1892, July 4	*DAVEY, HENRY THOMAS	Cumberland Villa, St. Anne's, Le Sussex.
848	A. 1882, Dec. 18 F. 1890, Nov. 10	DAVID, EDMUND USSHER	Old Bank Chambers, 27, High St., C
3460	1899, Feb. 16	DAVIDSON, CHARLES	Terrace Buildings, Paisley, Renfrews
3176	1897, Oct. 26	DAVIDSON, JAMES INGLIS	Sangton Mains, Edinburgh, & 175, George Street, Glasgow.
2575	A. 1893, Oct. 4 F. 1896, Mar. 2	*DAVIES, CYRIL FROODVALE... ...	Froodvale, Llanwrda, R.S.O., S. Wa
2512	A. 1892, Nov. 28 F. 1894, Oct. 10	*DAVIES, DAVID THOMAS	11, Serle Street, Lincoln's Inn, W.C
1509	1888, Dec. 10	DAVIES, GEORGE HUMPHREYS ...	8, Laurence Pountney Hill, E.C.
300	1873, Feb. 10	DAVIES, JOHN MORGAN	Froodvale, Llanwrda, South Wales.
2212	1891, Nov. 4	DAVIS, ALFRED THOMAS, A.M.I.C.E.	Shirehall, Shrewsbury.
1996	1891, Mar. 14	DAVIS, CHARLES EDWARD, B.A. (*London*)	Wroxton Estate Office, near Ban Oxon.
780	A. 1882, Mar. 13 F. 1889, Nov. 11	DAVIS, CHARLES JAMES	32, Strand, W.C.
491	A. 1877, Dec. 10 F. 1881, Nov. 14	DAVIS, JAMES	32, Strand, W.C.
897	1883, Feb. 26	DAW, WILLIAM HERBERT	6, Ironmonger Lane, E.C.
2215	1891, Nov. 4	DAWSON, PERCY JOHN	Zinal, Palace Rd., Streatham Hill,
1642	1889, Dec. 9	DAY, GEORGE CARLETON	Estate Office, Woodbridge, Shaftes Dorset.
1009	A. 1883, Dec. 17 F. 1887, Nov. 14	*DAY, WILLIAM, JUN., ...	23, High Street, Maidstone, Kent.
683	1882, Jan. 16	DEACON, THOMAS MARK	32, Craven Street, Charing Cross,
2779	1895, Sept. 2	DEAN, GEORGE B.	Balla Lodge, Castlebar, Co. Mayo.
1756	1890, Mar. 10	DEARLE, WILLIAM HENRY	Belmont, Clifton Rd., Norbiton 8, Craig's Court, Charing Cross,
2513	A. 1892, Nov. 28 F. 1893, Aug. 9	*DEBENHAM, FRANK BRIDGEWATER	80, Cheapside, E.C.
1442	1888, Jan. 23	DEBENHAM, FRANK GISSING ...	Cheshunt Park, Herts, & 80, Chea
2576	A. 1893, Oct. 4 F. 1899, Jan. 23	*DEBENHAM, FREDERIC KERSEY ...	80, Cheapside, E.C.
2140	A. 1891, May 23 F. 1893, Aug. 9	*DEBENHAM, HORACE BENTLEY ...	80, Cheapside, E.C.
2216	1891, Nov. 4	DEER, EDWARD	Stratford-on-Avon, Warwickshire.
1010	A. 1883, Dec. 17 F. 1891, Oct. 15	DEMETRIADI, THOMAS MARSDEN	28, John William Street, Huddersf
1667	A. 1889, Dec. 9 F. 1894, Jan. 22	*DENDY, WILLIAM COOPER	Surveyor's Department, Lambeth Hall, Kennington Green, S.E.
1930	1891, Jan. 17	DENNISON, JOHN W., F.R.I.B.A....	28, Upperton Gardens, Eastbourn
2780	1895, Sept. 2	DENNY, FRANCIS MCGILLYCUDDY	17, Denny Street, Tralee.
759	1882, Feb. 27	DEW, WILLIAM ARTHUR	Wellfield House, Bangor.

Date of Election and of Transfer.	FELLOWS.	Address.
1895, Sept. 2	DICKINSON, CHARLES, B.A. (*Dublin*)	36, South Frederick Street, Dublin.
A. 1884, Dec. 8 F. 1885, May 18	*DICKSON, THOMAS ARTHUR	Estate Office, Overston Park, Northampton.
A. 1894, Oct. 30 F. 1897, May 10	*DINWIDDY, DONALD	Greenwich, S.E.
1883, Feb. 12	DINWIDDY, THOMAS	Greenwich, S.E.
A. 1869, Feb. 8 F. 1878, Feb. 25	DODGSON, WILFRED LONGLEY ...	The Court, Cleobury North, Bridgnorth, and 55, Broad Street, Ludlow.
1884, Apr. 21	DOLL, CHARLES FITZROY	74, Gower Street, Bedford Square, W.C.
1891, Nov. 4	DOLLAR, PETER, A.R.I.B.A.	Clock House, Arundel St., Strand, W.C.
1895, Sept. 2	DOLLING, CALEDON JOSIAS RADCLYFFE	3, Lower Pembroke St., Merrion Sq., Dublin.
A. 1887, Dec. 19 F. 1891, Dec. 7	*DONE, JOHN JAMES	Cricklewood, N.W.
1885, Feb. 9	DONNE, HENRY	71, Temple Row, Birmingham, and Leek Wootton, Warwick.
1895, Sept. 2	DOPPING, JAMES HENRY, COL. ...	10, Trafalgar Terrace, Monkstown, Dublin.
1891, Nov. 4	DORNING, ARTHUR HARRY	41, John Dalton Street, Manchester.
A. 1869, Jan. 25 F. 1882, Nov. 31	DOWDEN, HENRY JOSEPH	8, Craig's Court, Charing Cross, S.W.
1878, Jan. 14	DOWNING, FREDERICK	12, King's Bench Walk, Temple, E.C.
1891, Mar. 14	DOWNING, HENRY PHILIP BURKE, F.R.I.B.A.	Avalon, Wilton Rd., Merton, Surrey, & 7, Great College St., S.W.
1891, Nov. 4	DOWSETT, CHARLES FINCH	3, Lincoln's Inn Fields, W.C.
1890, Nov. 22	DRANSFIELD, HENRY BROOK ...	12, 13, & 14, Estate Buildings, Huddersfield.
A. 1882, May 22 F. 1884, May 19	DRAPER, ARTHUR THOMAS	Friar Lane, Leicester.
1887, Jan. 10	DRAY, ALFRED	Town Hall Chambers, Hastings, Sussex.
1873, Feb. 10	DREW, HENRY ... ... (*Vice-President.*)	15, Queen Street, Exeter.
A. 1886, Dec. 6 F. 1888, Nov. 12	*DREW, HENRY ALBAN	15, Queen Street, Exeter.
A. 1884, Feb. 11 F. 1889, Jan. 14	DREW, JOHN GOULD, B.A. (*Oxon*)	15, Queen Street, Exeter.
1891, Nov. 4	DREWEATT, THOMAS	Newbury, Berkshire.
A. 1876, Jan. 10 F. 1878, Feb. 25	DRIVER, CHARLES WILLIAM ...	23, Pall Mall, S.W.
1880, Dec. 13	DRIVER, ROBERT MANNING ...	23, Pall Mall, S.W.
1882, Jan. 16	DRURY, EDW. DRU, F.R.I.B.A. ...	25, Queen Anne's Gate, S.W.
A. 1890, Jan. 6 F. 1893, Dec. 4	*DUDLEY, EDGAR	Bedford House, 24, Bedford St., Plymouth.
1890, May 29	DUKE, EDWARD	Dorchester.
1890, May 29	DUKE, FREKE GUY RASHLEIGH ...	Braehead, Kilmarnock.
1891, May 23	DUKE, HENRY	Dorchester, Dorset.
1890, Apr. 14	DUNCALFE, HENRY GEORGE ...	102, Darlington Street, Wolverhampton.
1891, Nov. 4	DUNCAN, JAMES MORISON	40 & 42, Queen Victoria Street, E.C.
1891, Jan. 17	DUNN, WILLIAM HENRY	11, St. Helen's Place, E.C.
1897, Feb. 17	DURLACHER, ALEXANDER PERCY	3, Otterburn Villas North, Jesmond, Newcastle-upon-Tyne.
1891, Jan. 17	DUVALL, JOHN WILLIAM	The Grange, Ware.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2222	1891, Nov. 4	DYBALL, HARVEY	35, Bucklersbury, E.C.
792	1882, Apr. 24	DYER, WILLIAM JOHN	Montpelier Row, Blackheath, S.E.
35	1868, June 15	DYMOND, FRANCIS WILLIAMS ...	Bampfylde House, Exeter.
1251	1885, Feb. 9	EADE, ARTHUR WILLOUGHBY FRENCH, M.A. (*Cantab.*)	Feethams, Darlington.
1529	A. 1888, Dec. 10 F. 1892, May 30	*EAGLAND, WILLIAM FRANCIS ...	274, Portland Rd., South Norwood, S
1584	1889, Feb. 25	EAGLE, WILLIAM	Westminster Buildings, 37, Brown Manchester.
864	1883, Jan. 15	EALES, FRED. ERNST., F.R.I.B.A.	9, Welbeck Street, W.
1585	1889, Feb. 25	EAMES, EDWARD	Compton, Winchester, Hants.
1934	1891, Jan. 17	EARDLEY, JOHN WILLIAM	The Grove, Alfreton, Derbyshire.
2223	1891, Nov. 4	EARLE, THOMAS ALGERNON ...	90, King Street, Manchester.
2224	1891, Nov. 4	EARNSHAW, JACOB	78, King Street, Manchester.
2577	A. 1893, Oct. 4 F. 1897, Feb. 8	*EASON, EDWARD WILLIAM	48, Bishopsgate Street Without, E.C
3090	A. 1896, Oct. 2 F. 1900, June 27	*EASTER, WILLIAM...	Wiggenhall St. German, King's L Norfolk.
2225	1891, Nov. 4	EASTHAM, JAS. COOK, A.M.I.C.E.	The Town Hall, Manchester.
1998	1891, Mar. 14	EASTON, JOHN H.	Bowl Alley Lane, Hull.
1999	1891, Mar. 14	EAYRS, JOHN THOS., M.I.C.E. ...	Clarence Chambers, Corporation St Birmingham.
2784	1895, Sept. 2	EDGEWORTH, THOS. NEWCOMEN...	Kilshrewly, Edgeworthstown.
2579	A. 1893, Oct. 4 F. 1896, Jan. 6	*EDMONDS, JOHN	Northfields House, Stamford, Lin shire.
2226	1891, Nov. 4	EDWARDS, ARTHUR PHIPPEN ...	Hutton, near Weston - super - M Somerset.
639	1881, Dec. 19	EGERTON, HUBERT DECIMUS ...	29, Fleet Street, E.C.
988	1813, Dec. 17	EGGAR, JAMES ALFRED	9, West Street, Farnham, Surrey.
2949	A. 1895, Oct. 24 F. 1896, Nov. 9	*EGGINTON, DENYS	150, Friar Street, Reading, Berks.
1173	1884, May 19	EGGINTON, JOHN	150, Friar Street, Reading.
530	A. 1879, Jan. 20 F. 1883, Dec. 3	EILOART, FREDERICK EDWARD ...	40, Chancery Lane, W.C.
1629	1889, Nov. 25	ELDRIDGE, HERBERT	28, Martin's Lane, Cannon St., E.C 28, Cadogan Place, Belgrave Sq.,
2227	1891, Nov. 4	ELFORD, JOHN	King Street, Poole, Dorset.
1434	1888, Jan. 9	ELGAR, J. EDWARD	Crockshard, Wingham, Kent.
1886	A. 1890, Nov. 22 F. 1892, Feb. 1	ELGOOD, FRANK MINSHULL, A.R.I.B.A.	98, Wimpole Street, W.
1401	1887, Dec. 19	ELLEN, FREDERICK CHARLES ...	The Auction Mart, Andover.
1036	1884, Jan. 14	ELLIOTT, CHARLES...	16, Ermington Terrace, Plymouth, D
2514	A. 1892, Nov. 28 F. 1896, Mar. 2	*ELLIS, ALBERT EDWARD	Bedford Chambers, Exeter.
2785	1895, Sept. 2	ELLIS, ERNEST FRANCIS LESLIE...	Estate Office, Bantry, Co. Cork.
577	A. 1880, Mar. 15 F. 1887, Nov. 14	ELLIS, ERNEST HAROLD	Town Hall Chambers, Guildford.
1887	A. 1890, Nov. 22 F. 1894, May 21	*ELLIS, FRANCIS, JUN.	Trafford Park, Patricroft, near chester.

Date of Election and of Transfer.	FELLOWS.	Address.
1891, May 23	ELLIS, FREDERICK...	141, Inverness Terrace, W.
A. 1888, Dec. 10 F. 1890, May 12	*ELLIS, HERBERT MOATES	7, Walbrook, E.C.
A. 1887, Jan. 24 F. 1891, Feb. 16	*ELLIS, RALPH STAPLES...	29, Fleet Street, E.C.
1883, Feb. 12	ELLIS, RICHARD ADAM	45, Fenchurch Street, E.C.
1875, Feb. 1	ELLIS, SIR JOHN WHITTAKER, BART.	29, Fleet St., and 18, Old Broad St., E.C.
1896, Oct. 28	ELTON, HERBERT AVERILL	Royal Engineer Office, The Castle, Cape Town, S.A.
A. 1881, Dec. 19 F. 1890, Dec. 8	ELWELL, WILLIAM HENRY	Surveyor's Office, Great Northern Railway, King's Cross, N.
1898, Feb. 18	EMERY, ARTHUR JAMES	Horse Guards, Whitehall, S.W.
1872, Feb. 26	EMMANUEL, BARROW	2, Finsbury Circus, E.C.
1891, Nov. 4	EVANS, ARTHUR OWEN	Town Hall, Pontypridd, Glamorganshire.
1891, Jan. 17	EVANS, GEORGE	Adelphi House, 10, Duke Street, W.C.
1883, Feb. 26	EVANS, ROBERT, F.R.I.B.A.... ...	Eldon Chambers, Wheeler Gate, Nottingham.
1891, Nov. 4	EVANS, WALTER PEARSON	Caldwell, Nuneaton.
1891, Nov. 4	EVANS, WILLIAM, A.M.I.C.E. ...	New Walk, Beverley, Yorkshire.
1895, Sept. 2	EVANS, WILLIAM	Gillardstown House, Killucan.
A. 1874, Feb. 16 F. 1876, Nov. 27	EVANS, WILLIAM ERNEST	School Gardens, Shrewsbury.
1891, Mar. 14	EVANS-VAUGHAN, HENRY	St.Peter's Chambers, Bournemouth, Hants
A. 1887, Dec. 19 F. 1891, May 25	*EVE, HERBERT TRUSTRAM	2, St. Paul's Square, Bedford.
1882, Jan. 16	EVE, JOHN RICHARD	St. Paul's Square, Bedford.
1868, Aug. 3	EVE, WILLIAM	10, Union Court, Old Broad Street, E.C.
1899, Oct. 30	*EVE, WILLIAM HAROLD	10, Union Court, E.C.
1887, Mar. 21	EVERARD, JOHN BREEDON, M.I.C.E., F.R.I.B.A.	6, Millstone Lane, Leicester.
1891, Nov. 4	EVERILL, FRANK	59, Foregate Street, Worcester.
A. 1894, Oct. 30 F. 1895, Nov. 25	*EVES, FRANCIS GEORGE BERTRAM	54, High Street, Uxbridge, Middlesex.
A. 1889, Jan. 14 F. 1892, Nov. 14	*EVES, WILLIAM LIONEL	54, High Street, Uxbridge.
1880, Jan. 5	FAIR, JACOB WILSON	Haigh Hall, Wigan, and 8, Winckley Street, Preston.
1888, Dec. 13	FAIR, JAMES STRETTON	Estate Offices, Lytham, and 4, Winckley Street, Preston.
1884, May 19	FAIR, THOMAS	Estate Offices, Lytham, Lancashire.
1891, Jan. 17	FAIRCLOUGH, WILLIAM	Leigh, Lancashire, and 60, King Street, Manchester.
1890, Mar. 10	FALCON, MICHAEL...	Horstead House, Norfolk.
1884, Jan. 28	FARMER, EDMUND	80, Cheapside, E.C.
A. 1895, Oct. 24 F. 1899, Oct. 2	*FARMER, HUGH CECIL	9, Whitehall Place, S.W.
1891, Nov. 4	FARNAN, HENRY RICHARD	75, Coleman Street, E.C.

Dip No.	Date of Election and of Transfer.	FELLOWS.	Address.
1759	1890, Mar. 10	FARRAR, SIDNEY HOWARD M.I.C.E.	54, Old Broad Street, E.C., and I Elizabeth, Johannesburg, S. Africa
2787	1895, Sept. 2	FARRELL, EDWARD FRANCIS ...	Moynalty, Kells, Co. Meath.
2002	1891, Mar. 14	FARRER, JOHN	Oulton, near Leeds, Yorkshire.
2235	1891, Nov. 4	FARTHING, WALTER THOMAS ...	46, Strand, W.C.
1938	1891, Jan. 17	FARWELL, FREDERICK GEORGE ...	11, Laura Place, Bath.
3069	1896, Oct. 28	FAWCETT, JOHN MORTIMER ...	26, Albion Street, Leeds.
1321	1886, May 17	FAWKES, ALGERNON	Woolley, Wakefield, Yorks.
1037	1884, Jan. 14	FAYERMAN, GEORGE METCALFE ...	88, The Parade, Leaming Warwickshire.
2925	1895, Oct. 21	*FENN, ANDREW THOMAS CRANAGE	The Lodge, Bromfield, Shropshire.
1402	1887, Dec. 19	FENN, JOHN	The Hall, Ardleigh, and 146, High Stu Colchester.
1712	1890, Feb. 10	FENN, THOMAS	Downton Castle, Ludlow.
565	A. 1880, Jan. 19 F. 1887, Apr. 18	FENNING, HERBERT SAMUEL ...	St. Paul's Square, Bedford, Bedfordsh
2003	1891, Mar. 14	FENWICK, THOMAS, M.I.C.E. ...	Leeds, Yorkshire.
974	1883, Nov. 12	FERRIS, GEORGE	Milton Manor, Pewsey, Wilts.
2788	1895, Sept. 2	FETHERSTONHAUGH, THEODORE ...	Grouse Lodge, Moate, Co. Westmea
831	1882, Dec. 18	FIDDIAN, WILLIAM...	Old Bank Offices, Stourbridge.
297	1873, Jan. 27	FIELD, FRANCIS HAYWARD	11, King Edward Street, Oxford.
872	1883, Jan. 29	FIELD, JAMES FREDERICK	54, Borough High Street, S.E.
2926	1895, Oct. 21	*FIELDS-CLARKE, GEORGE THOMAS	Estate Office, Southill Park, Biggleswa Beds.
2236	1891, Nov. 4	FINN, ADOLPHUS	High Street, Lydd, Kent.
2237	1891, Nov. 4	FINN, ARTHUR GEORGE	The Deanery, Chartham, Canterbur
2517	A. 1892, Nov. 28 F. 1896, May 11	*FINN, FRED. JUN....	Shepherd's Hill, Selling, Faversham, K
1843	1890, Nov. 22	FINN, GEORGE WILLIAM	Westwood Court, Faversham, Kent.
2456	A. 1891, Nov. 4 F. 1894, Oct. 10	*FINN, HERBERT ARCHIBALD ...	Egham, Surrey.
927	A. 1883, Apr. 16 F. 1889, Jan. 14	FISHER, CHARLES BROWNING ...	Hill Crest, Market Harborough.
1459	1888, Feb. 20	FISHER, EDWARD KNAPP	Market Harborough, Leicestershire
2581	A. 1893, Oct. 4 F. 1896, Mar. 2	*FITT, HARRY CHARLES	42, Arlington Road, Ealing, W.
3007	1896, Jan. 21	FITZGERALD, JAS. H. B. PENROSE	The Estate Office, Middleton, Co.
2789	1895, Sept. 2	FITZGERALD, PETER DAVID ...	66, George Street, Limerick.
2790	1895, Sept. 2	FITZGERALD, ROBERT JOHN ...	Ballyard House, Tralee.
2791	1895, Sept. 2	FITZHERBERT, HENRY CORRY ...	Millbrook, Abbeyleix, Queen's Co
3504	1899, Oct. 30	*FLETCHER, BANISTER FLIGHT ...	29, New Bridge Street, E.C.
2582	A. 1893, Oct. 4 F. 1897, June 28	*FLETCHER, HERBERT PHILLIPS, A.R.I.B.A., A.M.I.C.E.	29, New Bridge St., Ludgate Circus
1465	1888, Mar. 5	FLETCHER, THOMAS	Estate Office, Dunkenhalgh, Clayt Moors, near Accrington, & 46, Fi gate, Preston.
749	A. 1882, Feb. 13 F. 1891, June 29	FLINT, WILLIAM HURST	11, Searle St., Lincoln's Inn Fields

Date of Election and of Transfer	FELLOWS.	Address.
1890, Feb. 24	FODEN, EDWARD ANTROBUS ...	Teddesley Estate Office, Penkridge, Staffs.
1895, Sept. 2	FORBES, ARTHUR	Earls Vale, Cavan.
1891, May 23	FORBES, CHARLES MANSFELDT ...	14, New Street, York.
1891, Nov. 4	FORD, LAWTON ROBERT	St. Thomas's Chambers, 24, Railway Approach, London Bridge, S.E.
A. 1892, Nov. 28 F. 1895, May 13	*FORD, SOLOMON, A.R.I.B.A. ...	3, South Square, Gray's Inn, W.C.
1881, Dec. 19	FORREST, ROBERT	Windsor Estate Office, St. Fagans, near Cardiff.
1879, Dec. 8	FORSHAW, EDWARD	Hanley, Staffordshire, and Springfields Stramshall, Uttoxeter.
1890, Nov. 22	FORSYTH, THOMAS HILLS	39, Northumberland St. Newcastle-upon-Tyne.
1898, Feb. 18	FORTUNE, GEORGE ROBERT... ...	Charleton Estate Office, Colinsburgh Fife, N.B.
1884, Jan. 14	FOSBERY, WILLIAM THOMAS EXHAM...	Warwick.
1872, Mar. 11	FOSTER, CHARLES ROLLS	54, Pall Mall, S.W.
A. 1888, Dec. 10 F. 1892, Oct. 12	*†FOSTER, FRANK	8, Duke Street, Adelphi, W.C.
1891, Nov. 4	FOSTER, HENRY EDWIN	6, Poultry, E.C.
A. 1892, Nov. 28 F. 1895, Nov. 1	*FOSTER, JAMES HERBERT FURMEDGE...	9, Craig's Court, Charing Cross, S.W.
1881, Dec. 19	FOSTER, JOSEPH BURGESS	4, Cambridge Street, Plymouth, Devon.
1882, Jan. 16	FOULKES, SEPTIMUS GIFFORD ...	Tring, Herts.
1897, Oct. 27	FOWLER, ALFRED MOUNTAIN, M.I.C.E. ...	1, St. Peter's Square, Manchester, and 35, Old Queen Street, S.W.
1882, Jan. 16	FOWLER, FREDERICK	St. James' Street, Sheffield.
1890, May 29	FOWLER, GERARD EDMUND... ...	98, New Street, Birmingham.
1890, May 29	FOWLER, HENRY	63, Dale Street, Manchester.
1882, Dec. 18	FOWLER, HENRY	6, Waterloo Street, Birmingham.
1890, Apr. 14	FOWLER, REGINALD WILLIAM ...	3, Hartshed, Sheffield.
1887, Dec. 19	FOWLER, RICHARD	118, Colmore Row, Birmingham.
1889, Mar. 18	FOWLER, SYDNEY, A.R.I.B.A. ...	9, Craig's Court, Charing Cross, S.W.
1891, Nov. 4	FOWLER, WILLIAM	69, Temple Row, Birmingham.
1891, Nov. 4	FOX, CHARLES JAMES	7, Rawson Street, Halifax.
1890, Nov. 22	FOX, EDWIN	99, Gresham Street, E.C.
A. 1395, Mar. 18 F. 1899, Oct. 2	*FOX, FREDERICK RUSSELL	The Imperial Hotel, Barnstaple, Devon.
1891, Nov. 4	FRAMPTON, ALFRED, A.R.I.B.A.	62, and 63, Basinghall Street, E.C.
1891, Nov. 4	FRANCE, ARTHUR ALDERSON ...	99, Swan Arcade, Bradford.
1891, Nov. 4	FRANCE, CHARLES...	99, Swan Arcade, Bradford.
1889, Jan. 14	FRANCIS, GEORGE FUTVOYE ...	Eaton Chambers, Buckingham Palace Road, S.W.
1890, Mar. 10	FRANCIS, LEON ALBERT	8, John Street, Adelphi, W.C.
1890, May 29	FRANKLIN, ARTHUR THOMAS ...	25, Ludgate Hill, E.C.
A. 1891, Nov. 4 F. 1895, Feb. 18	*FRANKLIN, BENJAMIN BELGROVE	21, Market Hill, Luton, Beds.

† Special Sanitary Science Certificate

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1809	1890, May 29	FRANKLIN, THOMAS FREDERICK	25, Ludgate Hill, E.C.
2792	1895, Sept. 2	FRANKS, MATTHEW HENRY ...	Westfield, Mountrath, Queen's Count
2793	1895, Sept. 2	FRANKS, MATTHEW HENRY, JUN.	Westfield, Mountrath, Queen's Count
3019	A. 1896, Jan. 21 F. 1897, June 28	*FRAZER, THOMAS SMELLIE... ...	209, St. Vincent Street, Glasgow.
1967	A. 1891, Jan. 17 F. 1894, Dec. 10	*FRAZER, WILLIAM...	209, St. Vincent Street, Glasgow.
1114	A. 1884, Feb. 25 F. 1890, Apr. 14	FREEMAN, SYDNEY	The Broadway, Tunbridge Wells, K and 28, Queen Street, E.C.
3038	1896, June 2	FRENCH, SAVAGE	2, South Mall, Cork, Ireland.
2795	1895, Sept. 2	FREND, HENRY	Mitchelstown, Co. Cork.
2796	1895, Sept. 2	FREND, CAUSABON WILLIAM ...	Parsonstown, King's County.
1217	1884, Dec. 8	FREUER, WILLIAM...	West Rudham, King's Lynn, Norfolk
2069	1891, May 23	FROST, FREDERIC CORNISH ...	Teignmouth, Devon.
369	1875, Jan. 18	FRY, GEORGE FREDERICK	46, London Road, Dover, Kent.
3331	1898, Oct. 29	*FRY, JOSEPH HARRY	64, Craven Park, Willesden, N.W.
734	1882, Feb. 13	FRYER, GEORGE	Conservancy Buildings. Whitefriarg Hull,& Rose Villa, Bishop Wilton, York.
1063	1884, Jan. 28	FULLER, ERNEST	98, Wimpole Street, W.
1040	1884, Jan. 14	FULLER, HARRY	83, High Street, Croydon.
947	A. 1883, May 21 F. 1888, Nov. 26	FULLER, HERBERT HENRY	15, Serjeants' Inn, Fleet Street, E.C
1124	A. 1884, Mar. 10 F. 1891, Apr. 20	FULLER, THOMAS ALFRED	The College, All Saints', Derby.
775	1882, Mar. 13	FURBER, HERBERT	2, Warwick Court, Gray's Inn, W.C.
1417	A. 1887, Dec. 19 F. 1898, May 2	*FURBER, PERCY NORMAN	10 and 12, Walbrook, E.C.
1064	1884 Jan. 28	FURBER, WILLIAM...	2, Warwick Court, Gray's Inn, W.C.
3461	1899, Feb. 16	FYFE, JOHN WILLIAM	221, West George Street, Glasgow.
417	1876, Jan. 10	GAIRDNER, EDWARD JAMES ...	43, Chancery Lane, W.C.
2797	1895, Sept. 2	GALBRAITH, HUGH	21, Westland Row, Dublin.
3061	1896, Oct. 28	GALBRAITH, SAMUEL HAUGHTON, M.A., B.E. (*Dublin*)	Royal Engineer Office, Cork, Irelan
2245	1891, Nov. 4	GALE, ARTHUR JOHN, F.R.I.B.A.	4, Serjeants' Inn, Fleet Street, E.C.
2004	1891, Mar. 14	GALE, ERNEST SEWELL...	Falcon Court, 32, Fleet Street, E.C.
761	1882, Feb. 27	GALE, JOSEPH JOHN	Market Place, Wallingford, Berks.
55	1868, July 6	GALSWORTHY, FREDERICK THOMAS (*Vice-President*) ...	11, Waterloo Place, S.W.
1713	1890, Feb. 10	GAMBLE, SIDNEY GOMPERTZ, A.M.I.C.E.	Metropolitan Fire Brigade, South Bridge Road, S.E.
606	1889, Mar. 18	GANDY, JAMES	22, Essex Street, Strand, W.C.
735	1882, Feb. 13	GARDINER, EDWARD JAMES ...	110, Great Russell Street, W.C.
3377	A. 1898, Oct. 29 F. 1899, Nov. 13	*GARDINER, ROBERT STRACHAN ...	The Estate Office, Troy, Monmouth

Date of Election and of Transfer.	FELLOWS.	Address.
A. 1892, Nov. 28 F. 1895, Mar. 4	*Gardner, Gilbert	Ifield Court, Crawley, Sussex.
A. 1895, Oct. 24 F. 1898, Nov. 14	*Garner, John Stanley	8, The Parade, Hanwell, Middlesex.
1891, Nov. 4	Garrard, Norton Burroughs	Cranley Hall, Eye, Suffolk.
1895, Sept. 2	Garrett, James Hugh Moore	Corriewood, Castlewellan, Co. Down.
1891, Nov. 4	Garrood, Thomas William M.	172, Fenchurch Street, E.C.
1895, Sept. 2	Garvey, Toler Robert	Thornvale, Moneygall, King's County.
1895, Sept. 2	Garvey, Toler Robert, Jun. ...	Estates Office, Parsonstown.
1890, May 29	Gate, Alfred Joseph...	20, Mecklenburgh Square, W.C.
1882, Jan. 16	Gater, Caleb William	Salisbury, Wilts.
A. 1884, May 26 F. 1889, Jan. 14	Gayford, Henry John	Raynham Estate Office, East Raynham, Norfolk.
1889, Dec. 9	Gaze, Thomas William	Frenze Hall, Diss, Norfolk.
1899, Oct. 30	Geddes, Andrew Donald	Royal Engineer Office, Belfast, Ireland.
1883, Apr. 30	German, George	Packington House, Ashby-de-la-Zouch, Leicestershire.
A. 1892, Nov. 28 F. 1895, Nov. 11	*German, George, Jun.	Huntingdon House, Ashby-de-la-Zouch.
1891, May 23	German, Harry	Market Street, Ashby-de-la-Zouch, and Loughborough.
1883, Feb. 12	German, John	Ashby-de-la-Zouch, Leicestershire.
A. 1886, Jan. 11 F. 1890, Nov. 10	Gibbon, Wm. Jacomb, a.r.i.b.a.	57, Lincoln's Inn Fields, W.C.
1889, Apr. 29	Gibson, Denston	98, New Street, Birmingham.
A. 1889, Dec. 9 F. 1893, May 8	*Giddy, Osman Horton	121, Pall Mall, S.W.
1875, Feb. 1	Gilbert, William Henry Sainsbury	70, Queen Street, Cheapside, E.C.
1899, Feb. 16	Gilchrist, John	70, Wellington Street, Glasgow.
1889, Apr. 29	Gillart, David	Towyn, Merionethshire.
1899, Feb. 16	Gillespie, John	Blackhall, Paisley, Renfrewshire.
1888, Mar. 5	Gilpin-Brown, William Dundas	Starton, Kenilworth, Warwickshire.
1869, Dec. 6	Girdwood, James...	18, Adam Street, Adelphi, W.C.
1891, Nov. 4	Given, Maxwell	Town Surveyor's Office, Coleraine, Co. Derry, and Portrush, Co. Antrim.
1876, Jan. 24	Glasier, George Henry Brougham	7, St. James's Street, S.W.
1890, Jan. 27	Gleed, Richard Cummings ...	8 & 9, Martin's Lane, Cannon St., E.C.
1897, Oct. 26	Glendinning, George Robert	Hatton Mains, Kirknewton, Midlothian.
1895, Sept. 2	Gloster, Thomas Edward ...	Collon, Co. Louth.
A. 1894, Oct. 30 F. 1898, June 27	*Glover, Henry Alexander ...	21, Dahomey St. Mitcham Lane, Mitcham.
1889, Jan. 28	Goddard, Joseph, f.r.i.b.a. ...	6, Market Street, Leicester, and Carlton Chambers, 12, Regent Street, S.W.
1895, Sept. 2	Godley, Archibald	Killygar, Killeshandra.
1891, Nov. 4	Godsell, George Herbert ...	Palace Chambers, King St., Hereford.
A. 1897, Oct. 26 F. 1900, Feb. 12	*Goldsmith, Douglas Fleet ...	Lavant Street, Petersfield, Hants.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2005	1891, Mar. 14	GOLDSMITH, WILLIAM	40, Old Broad Street, E.C.
2251	1891, Nov. 4	GOODACRE, JOHN, F.R.I.B.A. ...	5, Friar Lane, Leicester.
1511	1888, Dec. 10	GOODACRE, ROBT. J., F.R.I.B.A.	Friar Lane, Leicester.
989	1883, Dec. 17	GOODCHILD, JOSIAH	59, Tollington Park, N.
1546	1889, Jan. 14	GOODWYN, LEONARD WILLIAM ...	8, Granville Chambers, Granville Plac Portman Square, W.
314	A. 1873, May 19 F. 1878, Mar. 11	GORE, SPENCER W.	7, Whitehall Place, S.W.
1939	1891, Jan. 17	GOTT, CHARLES, M.I.C.E.	8, Charles Street, Bradford.
2252	1891, Nov. 4	GOTT, CHARLES HENRY	8, Charles Street, Bradford.
1567	1889, Jan. 28	GOTT, FRANK	3, East Parade, Leeds.
478	A. 1877, Feb. 12 F. 1882, Dec. 18	GOTTO, FREDERICK EDWARD ...	Stony Stratford, Bucks.
3158	A. 1897, Feb, 17 F. 1897, May. 31	*GOULDING, ARTHUR	41, Moorgate Street, E.C.
578	1880, Apr. 12	GOULDING, WILLIAM PURDHAM ...	41, Moorgate Street, E.C.
2071	1891, May 23	GOULDSMITH, GEORGE WALLER ...	2, Pont Street, Belgrave Square, S.W.
2072	1891, May 23	GOVER, ARTHUR SUTTON, E.R.I.B.A.	4, Queen Street Place, E.C.
2253	1891, Nov. 4	GOVER, JOHN RICHARD	44, Great Dover Street, Borough, S.E.
1846	1890, Nov. 22	GRADWELL, ARTHUR RICHARD ...	29, Victoria Street, Blackburn.
2254	1891, Nov. 4	GRAHAM, ARTHUR GORE	"Brynawel," Usk, Monmouthshire.
370	1875, Jan. 18	GRAHAM, WILLIAM	Victoria Chambers, Newport, Mon.
1218	1884, Dec. 8	GRAIN, ARTHUR TRESS	2, St. Andrew's Hill, Cambridge.
827	A. 1882, Dec. 4 F. 1885, Jan. 12	GRANT, JAMES	Penrallt, Llanidloes, Montgomeryshi
1260	1885, Mar. 9	GRAVES, WALTER, F.R.I.B.A. ...	Winchester House, Old Broad St., E.C
2255	1891, Nov. 4	GREAVES, JOHN OLDROYD	69, Westgate, Wakefield.
1891	A. 1890, Nov. 22 F. 1894, Jan. 22	*GREEN, ALEXANDER ERNEST ...	Colonial House, 155, Fenchurch St., H
2141	A. 1891, May 23 F. 1897, May 31	*GREEN, EDMUND HORACE	28 and 29, St. Swithin's Lane, E.C.
2584	A. 1893, Oct. 4 F. 1897, May 31	*GREEN, FREDERICK ALGERNON ...	28 and 29, St. Swithin's Lane, E.C.
690	1882, Jan. 16	GREEN, JAMES	22, Chancery Lane, W.C.
1188	1884, May 26	GREEN, SAMUEL	28 and 29, St. Swithin's Lane, E.C.
3149	1897. Feb. 17	GREENWOOD, JOSEPH	Royal Engineer Office, Devonport, Dev
3150	1897, Feb. 17	GREGORY, ALFRED	44, Charing Cross, S.W.
2955	A. 1895, Oct. 24 F. 1896, June 26	*GREGSON, GEORGE ERNEST	11, Chaple Street, Preston.
2257	1891, Nov. 4	GREGSON, WILLIAM	Baldersby, S.O., Yorks.
1087	1884, Feb. 11	GRELLIER, HARLEY MAIR	6, Queen Anne's Gate, S.W., and Epso Surrey.
371	1875, Jan. 18	GREY, CHARLES GREY, M.A. (*Durham*)	Ballycourcy, Enniscorthy, Co. Wexfo
2673	A. 1894, Oct. 30 F. 1896, May 11	*GRIFFIN, ALFRED	St. Thomas' Chambers, 24, Rail-l Approach, London Bridge, S.E.
2073	1891, May 23	GRIFFIN, HAROLD	54, High Street, Battersea, S.W.

).).	Date of Election and of Transfer.	FELLOWS.	Address.
4	1890, Feb. 10	GRIFFITHS, EDWARD, JUN. ...	Knockin, near Oswestry.
6	1890, Feb. 24	GRIFFITHS, WILLIAM	Gelley-Wernen, Estate, Llanelly, Carmarthenshire.
8	1891, Nov. 4	GRIGGS, ROBERT, A.R.I.B.A. ...	11, Gray's Inn Square, W.C.
1	1889, Apr. 1	GRIMLEY, EDWIN FEARN	40, Temple Street, Birmingham.
2	1889, Apr. 1	GRIMLEY, THOMAS	40, Temple Street, Birmingham.
6	1892, Feb. 26	GROGAN, HENRY THOMAS	101, Park Street, Grosvenor Square, W.
1	1890, May 29	GROSE, VINCENT J., F.R.I.B.A. ...	13, Railway Approach, S.E.
7	A. 1890, Feb. 10 F. 1893, Jan. 23	*GROVER, ARTHUR...	11, Cecil Court, Charing Cross Rd., W.C.
4	A. 1894, Oct. 30 F. 1899, Jan. 23	*GROVER, PHILIP GORDON	Boveney, Sandgate Rd., Folkestone.
0	1891, Nov. 4	GRUNING, EDWARD A., F.R.I.B.A.	25, Gresham House, Old Broad St., E.C.
7	1890, Feb. 24	GUDGEON, GEORGE EDWARD ...	Estate Agency Offices, Winchester, Hants.
0	A. 1889, Jan. 14 F. 1900, May 21	*GUNTER, JAMES	Estate Office, Glasbury, Radnorshire.
3	1876, Mar. 20	GWYTHER, WILLIAM WARLOW, F.R.I.B.A.	26, Bedford Row, W.C.
2	1891, Nov. 4	HABGOOD, HENRY CHARLES ...	Witney, Oxfordshire.
7	1874, Mar. 16	HADDOCK, ROLAND	Richmond Chambers, Bournemouth, Hants.
0	A. 1889, Dec. 9 F. 1893, Aug. 9	*HADLEY, FRANK	59A, Temple Row, Birmingham.
3	A. 1892, Nov. 28 F. 1896, Oct. 1	*HAIGH, THOMAS FREDERICK ...	2, Friar Lane, Leicester.
3	1891, Nov. 4	HALE, RAYMOND HENRY	6, Great Queen Street, S.W.
9	1881, May 2	HALL, ERNEST	56, Commercial Rd., Portsmouth, Hants.
8	A. 1896, Oct. 28 F. 1897, June 28	*HALL, JOHN HERBERT	6, South St., Albert Square, Manchester, 2, Dunham Road, Altrincham, and Knutsford, Cheshire.
3	1883, Apr. 16	HALL, WALTER	38, Chancery Lane, W.C.
5	A. 1886, Jan. 11 F. 1891, June 29	*HALL, WILLIAM TIMOTHY	College Hill, Shewsbury.
9	1884, May 26	HALLETT, WILLIAM BROWN ...	11, Queen Victoria, Sreet, E.C., and 278, Holloway Road, N.
3	1895, Sept. 2	HAMILTON, ARTHUR	40, Lower Dominick Street, Dublin.
4	1895, Sept. 2	HAMILTON, EDWARD CHETWOOD, MAJOR...	Woodstock Estate Offices, Inistioge.
8	1890, Feb. 24	HAMILTON, JOHN	23 and 24, Wormwood Street, E.C.
5	1898, Feb. 18	HAMILTON, ROBERT	Lands Valuation Office, Greenock.
1	1897, Feb. 17	HAMMOND, ROBERT WILLIAM ...	Royal Engineer Office, Inner Lines, Chatham, Kent.
3	A. 1891, May 23 F. 1896, Jan. 6	*HAMPTON, GEORGE FREDK. WM.	1, Cockspur Street, S.W.
5	1891, Nov. 4	HAMPTON, WILLIE THOMAS ...	Swan St., Loughboro', Leicestershire.
1	1888, Apr. 30	HANCOCK, WILLIAM ST. JOHN HÜ, F.R.I.B.A.	Hong Kong, China, and 9, King Edward Street E.C.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1687	1890, Jan. 6	HANKINSON, THOMAS JAMES ...	Richmond Chambers, Bournemou Hants.
240	1885, Jan. 12	HANNEN, REGINALD ST. JOHN ...	The Cottage, Fordingbridge, Salisbur
892	A. 1883, Feb. 12 F. 1889, Jan 14	*†HANSELL, REGINALD GODDARD	5, Lancaster Place, Strand, W.C.
1245	1885, Jan. 26	HANSON, AMOS	35, Church Street, St. Helen's, Lancs.
2266	1891, Nov. 4	HANSON, JOHN HENRY, A.M.I.C.E.	20, Ramsden Street, Huddersfield.
642	1881, Dec. 19	HARDCASTLE, FREDERICK HENRY APPLETON, A.R.I.B.A.	5, Old Queen Street, S.W.
481	A. 1877, Mar. 26 F. 1882, Dec. 18	HARDING, EDWARD ERNEST ...	66, Cannon Street, E.C.
643	1881, Dec. 19	HARDING, SIDNEY LONGHURST ...	St. Albans, Herts.
2805	1895, Sept. 2	HARDMAN, EDWARD CHAMBRÉ ...	14, Molesworth Street, Dublin.
1182	1888, Apr. 30	HARDY, RICHARD THOMAS ASH	Land Agency and Estate Offices, Car Street, Uttoxeter, Staffordshire.
1613	1889, Apr. 1	HARGREAVES, STEPHEN	Brabyns Estate Office, Manor Hou Marple, Cheshire.
2071	1891, May 23	HARLAND, MARCHANT JAMES ...	Strafford Road, High Barnet.
2007	1891, Mar. 14	HARLE, JOHN JOSEPH	Tortworth Estate Office, Falfi Gloucester.
2267	1891, Nov. 4	HARPUR, WILLIAM, M.I.C.E. ...	Town Hall, Cardiff.
496	A. 1878, Jan. 28 F. 1883, Oct. 11	HARRINGTON, GEORGE FREDERICK	16, Abchurch Lane, E.C.
980	1883, Dec. 17	HARRIS, JAMES	Winchester Hants.
3189	1897, Oct. 26	*HARRISON, CHARLES	179, Hornington Street, Burton-up Trent, Staffordshire.
1739	1890, Feb. 24	HARRISON, JAMES THOMAS	Town Hall Offices, Buckingham.
3232	A. 1897, Oct. 26 F. 1899, Dec. 11	*HARRISON, JOHN EDWARD	Estate Office, Allestree, near Derby.
2075	1891, May 23	HARRISON, RICHD. CREESE, F.R.I.B.A.	103, Cannon Street, E.C.
1812	1890, May 29	HARSTON, ARTHUR	15, Leadenall Street, E.C.
3296	1898, Feb. 18	HART, PATRICK CAMPBELL, A.M.I.C.E.	134, St. Vincent Street, Glasgow.
3464	1899, Feb. 16	HART, JOHN	Cowie Mains, Stonehaven, Kincardi shire.
263	1871, Feb. 27	HART, WILLIAM FREDERICK ...	Lambeth Waterworks, Brixton Hill, S
2730	1895, Mar. 6	HARTLEY, HENRY	Bristow Chambers, 8, Harrington Str Liverpool.
806	1895, Sept. 2	HARVEY, JAMES GEO. MOREWOOD	Northern Bank Buildings, Londonde
523	A. 1878, Dec. 9 F. 1890, Jan. 6	HARVEY, JOHN JAMES SAYER ...	80, Castle Street, Canterbury, Kent.
1551	A. 1889, Jan. 14 F. 1891, Oct. 15	HASKINS, WILLIAM ALBION... ...	12, King's Bench Walk, Temple, E.C.
312	1873, May 19	HASLAM, DRYLAND	Friar Street Chambers, Reading Berl
1672	A. 1889, Dec. 9 F. 1893, Aug. 9	*HALSAM, DRYLAND, JUN.	Friar Street Chambers, Reading Berl
962	A. 1883, May 25 F. 1889, Apr. 1	*HASLUCK, LANCELOT GERALD ...	Green Hill Park, New Barnet, Hert.
2268	1891, Nov. 4	HAWKER, HARRY EDWIN	St. Peter's Chambers, Bournemouth.
1472	1888, Mar. 19	HAWKINS, CHARLES	Downham Market, Norfolk.

† Special Sanitary Science Certificate.

Date of Election and of Transfer.	FELLOWS.	Address.
1889, Mar. 18	HAWLEY, SIR HENRY MICHAEL, BT.	Tumby Lawn, Boston.
1891, Nov. 4	HAYNES, HENRY	Estate Office, Clifton, Nottingham.
1888, Dec. 10	HAYTON, JOSEPH WILLIAM	9, Bank Street, Carlisle.
1891, May 23	HAYTON, PATTINSON	9, Bank Street, Carlisle.
A. 1891, Jan. 17 F. 1894, Apr. 2	*HAYWARD, FREDERICK GEORGE...	Market Square, Dover, Kent.
1881, Dec. 19	HAYWARD, HENRY	Dover, Kent.
1885, Feb. 23	HAYWARD, HENRY	9, West Street, Hereford.
A. 1897, Oct. 26 F. 1900, June 27	*HAYWARD, THOMAS WILLIAM ALFRED	Borough Surveyor, Sudbury, Suffolk.
1885, Feb. 23	HAYWOOD, WILLIAM MATTHEWS	9, West Street, Hereford.
A. 1889, Dec. 9 F. 1891, May 25	*HEAD, JOHN GEORGE	7, Upper Baker Street, N.W.
1882, Dec. 18	HEARD HERBERT	Shepton Mallet, Somerset.
1895, Sept. 2	HEARN, CHARLES RICHARD ...	Armaghroe House, Caledon, Co. Tyrone.
A. 1894, Oct. 30 F. 1898, Mar. 7	*HEASLER, HOLLAND CHARLES ...	Verandah Cottage, Hill Rise, Richmond, Surrey.
1891, Nov. 4	HEATH, HENRY	34, Finsbury Pavement, E.C.
1882, Jan. 16	HEATON, GEORGE HERBERT ...	Endon, near Stoke-upon-Trent, Staffs.
1881, Apr. 4	HEBBLETHWAITE, LOUIS	Conservancy Buildings and Anlaby Rd., Hull.
1886, Dec. 6	HEDLEY, JOHN HUNT	7, Ashbrook Terrace, Sunderland.
1884, Feb. 11	HEDLEY, ROBERT WILKIN	41, Parliament St. S.W., & 31A, Colmore Row, Birmingham.
1890, Feb. 24	HEELIS, WILLIAM	26, Budge Row, E.C.
A. 1882, Nov. 13 F. 1890, Jan. 6	HENDERSON, HENRY ARTHUR ...	48, Finsbury Pavement, E.C.
1886, Dec. 6	HENDRIKS, HENRY	43, Waterloo Street, Birmingham, and 9, Craig's Court, Charing Cross, S.W.
1899, Feb. 16	HENRY JAMES	Lands Valuation Office, City Chambers,
1887, Mar. 7	HEPPER, JOHN	East Parade, Leeds. [Glasgow.
1884, Dec. 8	HERBERT, ALLEN	The Market Place, Andover, Hants.
1896, June 2	*HERN, SAMUEL	94, St. Mary Street, Cardiff.
1889, Feb. 11	HERRING, WILLIAM ARTHUR WARWICK	4, Holbein House, Sloane Square, S.W.
1888, Jan. 9	HESKETT, WILLIAM JAMES	St. Andrew's Churchyard, Penrith and Viaduct Chambers, Carlisle, Cumberland.
A. 1894, Oct. 30 F. 1895, Dec. 9	*HEWARD ERNEST JAMES	52, Wickham Road, Brockley, S.E.
1895, Sept. 2	HEWSON, GEORGE RAWDON MAURICE	Dromahair, Co. Leitrim.
1890, Feb. 10	HICKMAN, THOMAS	Leaton, near Shrewsbury.
1891, May 23	HICKSON, STEPHEN WESTBY ...	Telephone Buildings, 31, Queen Victoria
1884, Jan. 28	HIGGINS, FREDERIC	Alford, Lincolnshire. [Street, E.C.
A. 1889, Dec. 9 F. 1891, May 25	*HIGGINS, GEORGE	12, Finchley Rd., St. John's Wood, N.W.
1891, May 23	HILL, THOMAS NELSON	180, Hope Street, Glasgow.
1886, Mar. 22	HILL, WILLIAM BURROUGH	62, Above Bar, Southampton, Hants.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1303	A. 1886, Jan. 25 F. 1890, Mar. 24	HILLIARD, GEORGE EDWARD ...	Chelmsford, Essex.
1388	1887, Apr. 18	HILTON, JOHN	30, Budge Row, E.C., and 17, Montpel Row, Blackheath.
2079	1891, May 23	HINCKS, HENRY THORP	Wigston Hall, Leicester.
2272	1891, Nov. 4	HINDLE, JOHN	24, Bank Street, Bradford.
2273	1891, Nov. 4	HINDS, HENRY	57, Queen Street, Bradford.
671	A. 1881, Dec. 19 F. 1883, Nov. 12	HINE, GEORGE ERNEST...	5, Waterloo Place, S.W.
900	1883, Feb. 26	HINE, GEORGE THOMAS	35, Parliament Street, S.W., and Victo Street, Nottingham.
1782	1890, Apr. 14	HIPPISLEY, EDWIN MAGGS	4, Chamberlain Street, Wells, Somers
1783	1890, Apr. 14	HIPPISLEY, WILLIAM JOHN	12, Chamberlain Street, Wells, Somer
815	1882, May 22	HITCHCOX, WILLIAM	Victoria Chambers, Newport, Mon.
1769	1890, Mar. 24	HOBBS, JOHN	Estate Office, Ashford, Kent.
518	1878, Dec. 9	HOBGEN, FRANCIS NEALE	East Street, Chichester.
2080	1891, May. 23	HOBGEN, THOMAS CECIL	Highleigh, Sidlesham, near Chichest
888	1883, Feb. 12	HOBSON, FREDERICK WILLIAM ...	79, Coleman Street, E.C.
2008	1891, Mar. 14	HOBSON, HARRY	Swinfleet, near Goole, Yorkshire.
519	1878, Dec. 9	HODSON, GEORGE, M.I.C.E.	Loughborough, and Abbey Build Princes Street, Westminster, S.W.
2810	1895, Sept. 2	HODSON, GILBERT NEVILLE	Hollybrooke, Bray, Co. Wicklow.
2809	1895, Sept. 2	HODSON, RICHARD EDMOND, M.A. (*Dublin*)	Coolfadda House, Bandon, Co. Cork.
2275	1891, Nov. 4	HODSON, WILLIAM	7, Finsbury Square, E.C.
2081	1891, May 23	HOGGARTH, ARTHUR	Kendal, Westmoreland.
2082	1891, May 23	HOGGARTH, EDWIN	69, Highgate, Kendal, Westmoreland
793	1882, Apr. 24	HOLBECHE, ROBERT NEVILLE ...	21, Bennett's Hill, Birmingham.
357	1874, Nov. 16	HOLDEN, JOHN, F.R.I.B.A.	64, Cross Street, Manchester.
1155	1884, May, 5	HOLIDAY, FREDERICK DEAN ...	Bicester, Oxfordshire.
2587	A. 1893, Oct. 4 F. 1897, Feb. 8	*HOLIDAY, PERCY CAVE	Bicester, Oxfordshire.
893	A. 1883, Feb. 12 F. 1889, Nov. 11	HOLLAND, THOMAS JAMES, JUN...	30, Essex Street, Strand, W.C.
2277	1891, Nov. 4	HOLLINGSWORTH, ARTHUR AUGUSTUS ...	Bishop's House, 1, Bishopsgate Gat Without, E.C.
3190	1897, Oct. 26	*HOLLIS, WALTER DAWSON	26, Park Row, Leeds.
2278	1891, Nov. 4	HOLLOWAY, HARRY HOWNAM ...	Market Harborough.
2279	1891, Nov. 4	HOLMAN, GEORGE EDWARD ...	6, King's Bench Walk, Temple, E.C
1272	1885, Nov. 9	HOLME, JOHN	Owlet Ash, Milnthorpe, Westmorel
2009	1891, Mar. 14	HOLMES, MONTAGU	33, Paternoster Row, E.C.
2811	1895, Sept. 2	HOLMES, WILLIAM EDEN	69, Dann Street, Dublin.
2280	1891, Nov. 4	HOLT, GEORGE HY., A.M.I.C.E. ...	10, Richmond Terrace, Blackburn.
2281	1891, Nov. 4	HOMAN, FRANKLIN GEORGE ...	184, Eastgate, Rochester, Kent.
1595	A. 1889, Feb. 25 F. 1897, May. 31	*HOMAN, HUBERT FRANKLIN ...	184, Eastgate, Rochester, Kent.

Date of Election and of Transfer.	FELLOWS.	Address.
1890, Feb. 24	HONEYBALL, FRED THOMAS ...	Deal, Kent.
1891, May 23	HOOD, HON. VICTOR ALBERT NELSON	Sandeman Estate Sydicate, Russell River, Cairns, North Queensland.
1896, June 2	*HOOD, WALTER RICHARD	37, Walbrook, E.C.
A. 1888, Jan. 23 F. 1896, Jan. 6	*HOOPER, CECIL HENRY	Highlands, Swanley, Kent.
A. 1895, Oct. 24 F. 1899, Nov. 13	*HOOPER, EDGAR WILFRED	Conway, North Wales.
A. 1884, Feb. 11 F. 1889, Jan. 28	HOPE, WILLIAM ELLIOTT	7, East India Avenue, Leadenhall St., E.C.
1889, Dec. 9	HOPKINS, ALFRED JAMES	37, Mortimer St. Cavendish Square, W.
1891, Nov. 4	HOPKINSON, ALFRED, A.M.I.C.E.	15, Agar Street, Bury, Lancashire.
1891, Mar. 14	HORNE, EDMUND	High Street, Hounslow, Middlesex.
1882, Apr. 24	*HORNE, WILLIAM EDGAR ... ... *(Member of Council)*	85, Gresham Street, E.C., and 8, Delahay Street, S.W.
1887, May 9	HORNOR, CHARLES JARED	32, Prince of Wales' Road, Norwich.
1887, May 9	HORNOR, FRANCIS...	Queen Street, Norwich.
1890, May 29	HORSEY, FREDERICK JOHN TERRY	11, Billiter Square, E.C.
1869, Feb. 22	HORSFALL, RICHARD ... ... *(Member of Council)*	22A, Commercial St., Halifax, Yorkshire.
1890, Mar. 10	HORSFALL, RICHARD EDGAR ...	22A, Commercial St., Halifax, Yorkshire.
1891, Nov. 4	HORSFIELD, J. NIXON	2, Penrhyn Road, Kingston-on-Thames.
1895, Sept. 2	HOSFORD, EDWARD HENRY POE	76, George Street, Limerick.
1891, Nov. 4	HOUGHTON, FREDERICK	63, Bishopsgate Street Within, E.C.
1891, Nov. 4	HOUGHTON, JOHN POUNDS	26, The Avenue, Kew and Richmond.
1899, Oct. 30	*HOUGHTON, THOMAS MARCUS ...	5, Crooked Lane, King William St., E.C.
1891, Jan. 17	HOUGHTON, WILLIAM	58, Old Broad Street, E.C.
1889, Feb. 25	HOVENDEN, HENRY EDWARD ...	30, Bishopsgate Street Without, E.C.
1891, May 23	HOWARD, HARRY	Town Offices, Littlehampton.
1898, Feb. 18	HOWATT, WILLIAM	146, Buchanan Street, Glasgow.
A. 1869, Feb. 8 F. 1883, Mar. 12	HUBBERSTY, HENRY ALFRED ...	Buxton, Derbyshire.
1883, Apr. 30	HUDSON, ARTHUR BYRNE	17, Godliman Street, E.C.
1891, May 23	HUDSON, EDW. WM., A.R.I.B.A....	76, Fellows Rd. N.W., & Hove, Sussex.
1884, Mar. 10	HUDSON, JAMES	Penrith, Cumberland.
1889, Mar. 18	HUGMAN, CHARLES EADY	9, Craig's Court, Charing Cross, S.W.
1869, Feb. 22	HUMPHREYS, CHARLES	56, Leadenhall Street, E.C.
1895, Sept. 2	HUMPHREYS, DANIEL PEARD ...	80, South Mall, Cork.
1881, Dec. 5	HUMPHREYS, HENRY	Woodhouse, Loughborough, Leicestershire.
1891, May 23	HUMPHREYS, JOHN HENRY ...	Woodhouse, Loughborough, Leicestershire.
1891, May 23	HUNT, FREDERICK COPE	13, Victoria Street, Westminster, S.W.
1891, Nov. 4	HUNT, FRED WM. H., F.R.I.B.A.	30, York Place, Portman Square, W.
1874, May 11	HUNT, HENRY ARTHUR	45, Parliament Street, S.W.
1869, Mar. 8	HUNT, JOSIAH...	6, Queen Anne's Gate, S.W.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2089	1891, May 23	HUNT, THOMAS	Baldock Street, Ware, Herts.
2813	1895, Sept. 2	HUNT, WILLIAM LEWIS	83, George Street, Limerick.
2817	1895, Sept. 2	HUNT, WILLIAM POWER	81, George Street, Limerick.
1941	1891, Jan. 17	HUNTER, CECIL	Cricklewood, Middlesex.
2288	1891, Nov. 4	HURRELL, JOHN WEYMOUTH ...	25, Brazennose Street, Manchester.
1016	A. 1883, Dec. 17 F. 1891, Jan. 5	HUSKINSON, THOMAS WILLIAM ...	Epperstone Manor, Nottingham.
326	1874, Jan. 19	HUSKINSON, WILLIAM LAMBE ...	The Manor House, Epperstone, Notts
2815	1895, Sept. 2	HUSSEY, MAURICE, T. G.	Loughglynn House, Castlerea.
1182	A. 1884, May 19 F. 1889, Dec. 9	HUSSEY, ROBERT	Eastfields, near Lichfield.
2814	1895, Sept. 2	HUSSEY, SAMUEL MURRAY	18, Elvaston Place, S.W., and Edenb Gortalea, Co. Kerry.
2818	1895, Sept. 2	HUTCHINS, SAMUEL NEWBURGH...	Ardnagashel, Bantry, Co. Cork.
563	1880, Jan. 19	I'ANSON, Edward BLAKEWAY, F.R.I.B.A.	7A, Laurence Pountney Hill, E.C.
1137	1884, Apr. 21	INGE, CHARLES HENRY	Broom Leasoe, Whittington, Lichfiel
851	A. 1882, Dec. 18 F. 1891, Aug. 4	INGRAM, HENRY LAW	7, Whitehall Place, S.W.
305	A. 1873, Feb. 10 F. 1882, Jan 16	INGRAM, WALTER FIELDE	2, St. Andrew's Place, Lewes, and Preston Street, Brighton, Sussex..
834	1882, Dec. 18	INMAN, MARSHALL NISBET	7, Bedford Row, W.C.
2290	1891, Nov. 4	INMAN, WILLIAM NUTTER	126, Maida Vale, W.
835	1882, Dec. 18	INNOCENT, CHAS., J., F.R.I.B.A....	Sheffield.
2291	1891, Nov. 4	IRELAND, EDWIN BENJAMIN ...	Guestwick, East Dereham, Norfolk.
2819	1895, Sept. 2	IRVINE, HY., LIEUT.-COL.	Oatlands, Omagh, Co. Tyrone.
3191	1897, Oct. 26	*ISTED, SAMUEL EVELAND	Royal Engineer Office, North C Aldershot.
1942	1891, Jan. 17	JACKSON, BENJAMIN WHITEHEAD	7, Rawson Street, Halifax.
570	1880, Feb. 16	JACKSON, CHARLES	23, Brazennose Street, Manchester.
1943	1891, Jan. 17	JACKSON, SAMUEL	Tanfield Chambers, Bradford.
1404	1887, Dec. 19	JACKSON, WILLIAM TRESS	117, High Street, Sittingbourne.
2293	1891, Nov. 4	JAMES, CHRISTIAN HUGH	Rudchester, Wylam-on Tyne.
2820	1895, Sept. 2	JAMESON, ROBT. WILLIAM	Estates Office, Foynes, Co. Limeric
2684	A 1894, Oct. 30 F. 1899, June 26	*JARMAIN, WILLIAM	149, Seven Sisters Rd., Finsbury P
2527	A. 1892, Nov. 28 F. 1898, Oct. 3	*JARMAIN, FRANK WILMOT	4, High Street, Croydon.
1302	1886, Jan. 25	JEANS, MARK...	Marlborough, Wilts.
2588	A. 1893, Oct. 4 F. 1895, Nov. 25	*JEFFREE, SYDNEY	9, Southampton St., Bloomsbury Sq.,,

Date of Election and of Transfer.	FELLOWS.	Address.
A. 1895, Oct. 24 F. 1897, May 31	*JENKIN, AUTHUR PEARSE	Trewirgie, Redruth, Cornwall.
1891, Nov. 4	JENKINS, OSWALD	57, Colmore Row, Birmingham.
A. 1893, Oct. 4 F. 1895, Nov. 25	*JENKINSON, JOHN	1, Princes Street, Westminster, S.W.
A. 1897, Feb. 17 F. 1899, Mar. 20	*JENKINSON, WILLIAM ERIC LEIGH	6, Moorgate Street, E.C.
1882, Feb. 13	JENKINSON, WILLIAM WILBERFORCE	6, Moorgate Street E.C.
A. 1896, June 2 F. 1900, June 27	*JENNINGS, FITZ-LAURENCE, PERCIVAL DUDLEY	Old Post Office Chambers, Bournemouth Hants.
A. 1894, Oct. 30 F. 1897, Nov. 8	*JENNER, WILLIAM	1, Western Road, Hove, Brighton.
1891, Mar. 14	JENNINGS, WILLIAM JOSEPH ...	4, St. Margaret's St. Canterbury, Kent.
1896, Oct. 28	JEROME, THOMAS STROUD	Mandora, Effingham Road, Surbiton, Surrey, & Horse Guards, Whitehall,
1883, Dec. 17	JEUDWINE, WILLIAM WYNNE ...	Chesterfield. [S.W.
A. 1892, Nov. 28 F. 1896 Nov. 23	*JOHNSON, BERNARD MARR	9, Whitehall Place, S.W.
A. 1883, May 25 F. 1885, Jan. 26	*JOHNSON, HENRY	35, Coleman Street, E.C.
1895, Sept. 2	JOHNSON, JOCELYN OTWAY	Kilganon, Enniskerry.
A. 1887, Dec. 19 F. 1894, May 28	*JOHNSTON, WALTER HENRY... ...	County Offices, Auditors' Department, Preston, Lanc.
1899, Feb. 16	JOHNSTONE, JAMES	Alloway Cottage, Ayr, Ayrshire.
1895, Sept. 2	JOHNSTONE, JOHN BRETT	Ballycastle, Co. Antrim.
1891, Nov. 4	JOLLY, JOHN HAWKINS...	1, Dalton Terrace, The Mount, York.
A. 1888, Feb. 20 F. 1891, May 25	*JONAS, HARRY MARSHALL	27, Market Place, Cambridge.
A. 1869, Apr. 5 F. 1878, Feb. 25	JONAS, HENRY	23, Pall Mall, S.W.
1885, Apr. 20	JONES, CHARLES, M.I.C.E.	The Lodge, Culmington Road, Ealing.
1882, Mar. 13	JONES, CHARLES FREDERICK ...	Eldon Chambers, 30, Fleet Street, E.C.
A. 1896, Oct. 28 F. 1898, Dec. 12	*JONES, ERNEST JOEL	53, Maida Vale, W.
1890, Jan. 27	JONES, FRANCIS WILLIAM	2, Frewin Court, Corn Market St., Oxford.
A. 1889, Apr. 1 F. 1891, Dec. 7	*JONES, FREDERICK HERBERT ...	Parliament Mansions, Victoria St., S.W. and 35, The Broadway, Ealing, W.
A. 1883, May 25 F. 1886, Nov. 8	*†JONES, HENRY ARTHUR	49, Bedford Street, Strand, W.C.
1890, Nov. 22	JONES, ISAAC M., A.M.I.C.E. ...	The Town Hall, Chester.
A. 1881, Dec. 19 F. 1891, May 25	JONES, THOMAS	1, Princes Street, Westminster, S.W.
1887, Jan. 10	JONES, WALTER BUTLER CLOUGH	Mynydd, Ednyfed, Criccieth, North Wales.
1891, Mar. 14	JONES, WILLIAM EDWARD	Anglesey Estate Office, Craig, Llanfair, P.G., Anglesey.
1891, Nov. 4	JOPLING, JOSEPH	Wallington, Surrey.
1891, Nov. 4	JOSELAND, CHARLES	Bank Buildings, Kidderminster.
1888, Mar. 5	JOSEPH, DELISSA, F.R.I.B.A. ...	17 and 18, Basinghall Street, E.C.
1884, Feb. 25	JOYCE, JOHN HALL	Blackfordby, near Burton-on-Trent.

† Special Sanitary Science Certificate.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
412	A. 1875, Dec. 13 F. 1887, Mar. 21	KAYE, JOHN EDWARD	Bretton Lodge, Wakefield, Yorkshire
3010	1896, Jan. 21	KEANE, MARCUS	Beech Park, Ennis, Co. Clare.
1190	1834, May 26	KEDGLEY, CHARLES	Hibernia Chambers, London Bridge,
580	1880, Nov. 8	KEIRLE, ROBERT, F.R.I.B.A. ...	Suffolk House, Laurence Pountney
2823	1895, Sept. 2	KELLY, RICHARD HENRY	21, The Mall, Waterford.
1904	A. 1890, Nov 22 F. 1892, July 4	*KEMP-SMITH, JAMES FRED	Orsett, Essex.
975	1883, Nov. 12	KEMSLEY, JOSEPH WILLIAM ...	41, Bishopgate Street Within, E.C., W. ford Green, & Corn Exchange, Romf
1716	1890, Feb. 10	KENNEDY, JAMES	25, Bedford Row, W.C.
1191	1884, May 26	KENT, GEORGE EDWARD	"Normanhurst," Cavendish Road, So sea, Hants.
2299	1891, Nov. 4	KENWRICK, GEORGE	83, Colmore Row, Birmingham.
2300	1891, Nov. 4	KERL, WILLIAM JAMES	4, Old Jewry, E.C., & Beckenham, K
3332	1898, Oct. 29	*KERRUISH, WILLIAM MALTBY ...	21, Athol Street, Douglas, Isle of Ma
1614	1889, Apr. 1	KERSEY, ALEX. H., F.R.I.B.A. ...	21, Finsbury Pavement, E.C.
1850	1890, Nov. 22	KIDWELL, JOHN	St. Margaret's Bank, Rochester, Ke
2824	1895, Sept. 2	KINCAID, JAMES STEWART ... ... (*Member of Council*)	7, Leinster Street, Dublin.
2825	1895, Sept. 2	KINCAID, JOSEPH WESTBY	7, Leinster Street, Dublin.
1225	A. 1884, Mar. 10 F. 1888, Dec. 10	*KING, ALFRED	12, Princes Street, Westminster, S.W
873	1883, Jan. 29	KING, FRANK HULME	Horsham, Sussex.
1192	1884, May 26	KING, HENRY	Stourbridge, Worcestershire.
2301	1891, Nov. 4	KING, JOHN BUSBY	Albert Park, Abingdon, Berks.
1193	1884, May 26	KING, THOMAS	Pembroke House, Portsmouth, Hant
191	1869, Mar. 22	KING, SIR WILLIAM DAVID, D.L.	Stratford Lodge, Southsea, Hants.
808	1882, May 8	KINGSTON, SAMUEL	Spalding, Lincoln.
1502	1888, Nov. 26	KIRBY, EDMUND, F.R.I.B.A. ...	5, Cook Street, Liverpool.
3298	1898, Feb. 18	KIRKWOOD, CHARLES	67, West Regent Street, Glasgow.
2303	1891, Nov. 4	KITTOW, JOHN	West Holm, Launceston.
2487	1892, Feb. 26	KNIGHT, EDGAR WALSH	48, South Street, Greenwich, S.E.
3063	1896, Oct. 28	KNIGHT, HENRY ST. JOHN	Royal Engineer Office, Wei-Hai- China.
2826	1895, Sept. 2	KNIGHT, MAURICE CHARLES ...	The Grange, Ballymena, Co. An Ireland.
853	A. 1882, Dec. 18 F. 1889, Dec. 9	KNOWLES, HENRY	Egerton House, The Spa, Glouceste
2827	1895, Sept. 2	KNOX, ALBERT FREDERIC	Estate Office, Ballina, Co. Mayo.
2830	1895, Sept. 2	KNOX, ALBERT HENRY	Estate Office, Ballina, Co. Mayo.
3178	1897, Oct. 27	KNOX, ALEXANDER	53, Bothwell Street, Glasgow.
2828	1895, Sept. 2	KNOX, EDWARD ERNEST	8, Milward Terrace, Bray, Ireland.
2829	1895, Sept. 2	KNOX, ERNEST HENRY	Rahans, Ballina, Co. Mayo.
2831	1895, Sept. 2	KOUGH, THOMAS	Estate Office, Kilkenny.

Date of Election and of Transfer.	FELLOWS.	Address.
1891, Nov. 4	LACY, JOHN TURK	10, Buckingham Street, Strand, W.C.
1899, Feb. 16	LAING, DAVID TAYLOR	20, Bridge Street, Glasgow.
1891, Nov. 4	LAING, JOHN	20, Bridge Street, Glasgow.
A. 1895, Oct. 24 F. 1899, June 26	*LAKE, CUTHBERT JOSEPH	25, Bucklersbury, E.C.
A. 1895, Oct. 24 F. 1896, Oct. 1	*LAKIN-SMITH, ERNEST...	98, New Street, Birmingham.
A. 1889, Jan. 14 F. 1891, Dec. 7	*LAMBERT, GODFREY CHARLES ...	10, Basinghall Street, E.C.
1891, Nov. 4	LAMMIE, GEORGE	138, Hope Street, Glasgow.
1887, Dec. 5	LANCASTER, CHARLES HOLLAND	Union Offices, Brougham Terrace, West Derby Road, Liverpool.
A. 1893, Oct. 4 F. 1899, Oct. 2	*LANCASTER, JOHN ROY	85, Gresham Street, E.C.
1891, May 23	LANE, ERNEST LACAN	81, Old Christchurch Rd., Bournemouth.
1890, Jan. 6	LANG, CHARLES AUGUSTUS... ...	3, King Street, Cheapside, E.C.
A. 1898, Oct. 29 F. 1899, June 26	*LANG, CHAS. FREDK. DASHWOOD	3, King Street, Cheapside, E.C.
1882, Feb. 27	LANGRIDGE, GEORGE .. .. (*Member of Council*)	The Broadway, Tunbridge Wells, Kent.
1889. Dec. 9	LARMOUTH, GEORGE HORATIO ...	Wilton Chambers, 10, St. Ann's Square, Manchester.
1891, Mar. 14	LATTER, HUGH ROBINSON	The Town Hall, Bromley, Kent.
1868, Nov. 9	LAURANCE, JOHN	Sexton Barns, Peterboro'.
1884, Feb. 11	LAW, EDMUND, F.R.I.B.A.	St. Giles' Square, Northampton.
1890, Feb. 10	LAWFORD, WILLIAM ROBINSON ...	Underhill, Oswestry.
1891, May 23	LAWRANCE, WALTER	13, Hart Street, Bloomsbury Sq., W.C.
1891, Jan. 17	LAWRENCE, ARTHUR	Great Marlow, Bucks.
1891, Nov. 4	LAWRENCE, PETER	50, Frederick Street, Edinburgh.
A. 1883, Dec. 17 F. 1889, Nov. 11	LAWRENCE, WILLIAM ROBERT ...	57 & 58, Chancery Lane, W.C.
A. 1891, Jan. 17 F. 1895, Mar. 4	*LEANING, HENRY JOHN	28, John Street, Bedford Row, W.C.
1888, Feb. 20	LEANING, JOHN	28, John Street, Bedford Row, W.C.
A. 1894, Oct. 30 F. 1895, Nov. 25	*LEANING, WILLIAM ARTHUR ...	30, Telford Avenue, Streatham Hill, S.W.
1894, Oct. 30	*LEATHER, GEORGE HERBERT ...	Central Bank Chambers, Leeds.
A. 1868, July 6 F. 1882, May 8	LEE, CHARLES WILLIAMS	63, Lincoln's Inn Fields, W.C.
1874, Feb. 2	LEE, FREDERICK	6, Great College Street, S.W.
A. 1887, Jan. 10 F. 1893, Nov. 13	*LEE, JOHN WILFRID	Vestry Hall, Hampstead, N.W.
1889. Mar. 18	LEE, PHILIP SHIRLING	35, Craven Street, W.C., and Oaklands, Woodford, Essex.
1891, May 23	LEE, SYDNEY WILLIAMS, F.R.I.B.A.	63, Lincoln's Inn Fields, W.C.
1884, Feb. 11	LEE, WILLIAM	143½, High Street, Guildford, Surrey.
1895, Oct. 24	*LEEDER, ERNEST HOLTHAM ...	46, Waterloo Street, Swansea.
1891, Mar. 14	LEGARD, DIGBY CHARLES	Highington Hall, Lincoln.
1882, Dec. 18	LEMON, JAMES, M.I.C.E., F.R.I.B.A.	Southampton.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
717	1882, Jan. 30	LEPPER, JOHN HARRAGE	10, Market Square, Bromley, Kent.
1156	1884, May 5	LE ROSSIGNOL, FRANCIS	1, Gresham Buildings, Basinghall [
2832	1895, Sept. 2	L'ESTRANGE, CHRISTOPHER ARTHUR...	Estates Office, Sligo.
298	A. 1873, Jan. 27 F. 1882, April 24	LERMIT, ALFRED WILLIAM... ...	Singapore, Straits Settlement.
1176	1884, May 19	LETHBRIDGE, WALTER	1, Leigham Villas, Plymouth.
1945	1891, Jan. 17	LETTS, THOMAS HOLLINS	185, Earl's Court Road, S.W.
647	1881, Dec. 19	LIGHTFOOT, FRANCIS LOWRY, B.A. (*Oxon.*)	53, Parliament Street, S.W.
901	1883, Feb. 26	LIGHTFOOT, HENRY LE BLANC, M.A. (*Oxon.*)	Corpus Christi College, Oxford.
1646	1899, Dec. 9	LINAKER, CHARLES EDWARD ...	Frodsham, Cheshire.
1405	1887. Dec. 19	LISTER-KAYE, CHARLES WILKINSON	Osberton, Worksop, Notts.
2310	1891, Nov. 4	LITTLE, WILLIAM	Hutton Hall, Penrith.
949	A. 1883, May 21 F. 1888, Apr. 16	LITTLE, WILLIAM DAVIS	Middleton Stoney, Bicester, Oxon.
2311	1891, Nov. 4	LITTLEWOOD, LIONEL	26, Great James St., Bedford Row, W
2093	1891, May 23	LLEWELLIN, DAVID MORGAN ...	Glanwern Offices, Pontypool.
2834	1895, Sept. 2	LLOYD, AVERELL	Benburd, Moy, Co. Tyrone.
2488	1892, Feb. 26	LLOYD, GEORGE. HAMILTON, A.M.I.C.E.	7, St. Mildred's Court, Poultry, E.C
648	1881, Dec. 19	LOCK, WILLIAM HENRY	Instow, North Devon.
3468	1899. Feb. 16	LOCKHART, PETER	Estate Office, Edenhall, Langwat Cumberland, and Blackwood Ho Ecclefechan, Dumfriesshire.
2313	1891, Nov. 4	LOFTHOUSE, ROGER	62, Albert Road, Middlesbrough-on-T
393	1875, Mar. 15	LOFTS, HENRY	130, Mount St., Grosvenor Square,
1164	A. 1884, May 5 F. 1891, June 29	LOFTS, HENRY FAIRLAM	130, Mount St., Grosvenor Square,
3469	1899, Feb. 16	LOGAN, JAMES	Coltness, Wishaw, Lanarkshire.
2462	A. 1891, Nov. 1 F. 1895, July 8	*LONGSDON, ERNEST MOREWOOD ...	Town Hall, Bakewell.
1138	1884, Apr. 21	LOOKER, JOHN	High Street, Huntingdon. [
2314	1891, Nov. 4	LORING, JOHN	The Cottage, Doddington, Nantwich, C
1396	1887, Nov. 14	LOVEGROVE, HENRY, A.R.I.B.A....	Eboracum, Herne Hill, S.E., and High Street, Shoreditch, E.
1814	1890, May 29	LOVEYS, ARTHUR CLAMPITT ...	Moretonhampstead, Devon. [
1126	A. 1884, Mar. 10 F. 1891, Feb. 16	LOW, ROBERT JOHN	49, Finsbury Pavement, & St. Al
738	1882, Feb. 13	LOWE, CHARLES HARLOWE	Hampstead Vestry Hall, Haver Hill, N.W.
2532	A. 1892, Nov. 28 F. 1897, June 28	*LUCAS, JOHN ARCHIBALD	Guildhall Chambers, High Street, Ex
1648	1889, Dec. 9	LUCAS, WILLIAM EDWARD	Bexley, Kent. [D
1742	1890. Feb. 24	LUDLOW, WALTER ROBERT	Dorridge, Knowle, Warwick, and New Street, Birmingham.
3567	A. 1899, Oct. 30 F. 1900, June 27	*LUKER, DYNELEY	19, Waldeck Road, Ealing, W.
2095	1891, May 23	LYNAM, CHARLES, F.R.I.B.A. ...	Stoke-on-Trent.

Date of Election and of Transfer.	FELLOWS.	Address.
1898, Feb. 18	LYONS, FRANCIS OLIVER	102, St. Stephen's Green, Dublin.
1890, Feb. 24	LYWOOD, EDWIN	Norman Court, Clatford, Andover, Hants.
1891, Nov. 4	MACCALLUM, ALEXANDER DUNCAN	12, St. Vincent Place, Glasgow.
1899, Feb. 16	MCCALLUM, JAMES	Town Hall, Motherwell, Lanarkshire.
A. 1894, Oct. 30 F. 1895, Sept. 23	*MCCARTHY, HENRY ROBERT ...	67, Crouch Hill, N.
1896, June 2	M'CLINTOCK, ARTHUR	Downshire Office, Hillsborough, Co. Down.
1895, Sept. 2	MCCLINTOCK, CHARLES EDWARD LIEUT-COL.	Glendaragh, Crumlin, Co. Antrim.
1891, Nov. 4	MCCRACKEN, WILLIAM	Englesea House, Crewe.
1895, Sept. 2	MCCULLAGH, JAMES W.	Glasslough, Co. Monagham.
1896, Oct. 28	MCDERMOTT, N. BERNARD, C.E.	Turret Lodge, 100, Cavendish Road, Clapham Park, S.W.
1895, Sept. 2	MCDONALD, ALLAN, M.A., (*Dublin*)	Glenarm, Co. Antrim.
1899, Feb. 16	MACDONALD, RANALD	Clung Castle, Aberdeen.
1899, Feb. 16	MACDONALD, RANALD RODERICK	16, Union Terrace, Aberdeen.
1891, May 23	MACDOUGALL, ROBERT	138, West Regent Street, Glasgow.
1891, Nov. 4	MCINTYRE, PETER	Gwydyr Ucha, Llanrwst, North Wales.
1889, Apr. 1	MACIVER, COLIN	23, Bold Street, Warrington.
1899, Feb. 16	MACKAY, WILLIAM	Freswick Estates Office, Thurso, Caithness-shire.
1899, Feb. 16	MACKENZIE, DONALD FALCONER	Estate Office, Mortonhall, Liberton, Midlothian.
1891, Nov. 4	MCKIE, HUGH UNSWORTH, M.I.C.E.	Lincoln Villa, Julian Road, Ludlow.
1889, Apr. 29	MCLEAN, DONALD	Dunrobin Estate Office, Golspie, Sutherlandshire.
1899, Feb. 16	MACLENNAN, WILLIAM	Grainbank, Kirkwall, Orkney Islands.
1895, Oct. 24	*MACNICOLL, DOUGLAS HENRY ...	Derwas, Abergele, Denbighshire.
1899, Feb. 16	MACPHERSON, WILLIAM	Montrose Estates Office, Cattar House, Drymen, Stirlingshire.
A. 1893, Oct. 4 F. 1896, Oct. 1	MADDOX, HARRY EDWARD	Cottesmore, Gainsborough Gardens Hampstead Heath, N. W.
1891, Nov. 4	‡MADGE, JOHN	Somerset House, Chard, Somersetshire.
1896, Jan. 21	MAHON, GEORGE GILBERT	The Rent Office, Ahascragh, Co. Galway.
1897, Oct. 26	MAKINS, WILLIAM ALEXANDER ...	79, West Regent Street, Glasgow.
1891, Nov. 4	MALLETT, WILLIAM ROBERT ...	8, Bream's Buildings, Chancery Lane, E.C.
1869, Jan. 25	MANN, CHARLES JOHN	29, Great George Street, S.W.
1891, Nov. 4	MANN, JABEZ, A.M.I.C.E.	Sevenoaks, Kent.
1890, Apr. 14	MANN, JAMES BAGSHAW	12, Lower Grosvenor Place, S.W.
A. 1889, Jan. 14 F. 1893, Feb. 6	*MANN, ROBERT BAGSHAW	29, Great George Street, S.W.
1891, Jan. 17	MANNERS, HENRY ALFRED	Buckminster Park, near Grantham.

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‡ Special Forestry Certificate.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1616	1889, Apr. 1	MARGERESON, CHARLES FREDERIC	New Square, Chesterfield.
1362	1887, Jan. 24	Margetts, John WILLIAM	12, High Street, Warwick.
1947	1891, Jan. 17	MARKS, HYMAN	19, Ludgate Hill, E.C.
2839	1895, Sept. 2	MARMION, THOMAS HENRY ...	Estates Office, Cappoquin.
192	1869, Mar. 22	MARR, JAMES	8, Adam Street, Adelphi, W.C.
470	A. 1877. Jan. 15 F. 1889, Dec. 9	MARRIOTT, GEORGE WHARTON ...	35, Egerton Crescent, S.W.
3162	A. 1897, Feb. 17 F. 1899, July 13	*MARSHALL, ARTHUR GEORGE ...	The Members' Mansions, 36, Victoria
626	A. 1881, Nov. 14 F. 1884, Nov. 10	MARSHALL, LIONEL HASLER ...	Chippenham, Wilts.
1785	1890, Apr. 14	MARSHALL, PETER	3, Hartshead, Sheffield.
2631	A. 1894, Feb. 23 F. 1897, Oct. 4	*MARTIN, ALFRED JOHN	16, Duke Street Chelmsford, Essex.
976	1883, Nov. 12	MARTIN, GEORGE DENNIS	3, Pall Mall East, S.W.
434	1876, Mar. 20	MARTIN, GILSON	Chatsworth, Chesterfield.
1555	A. 1889, Jan. 14 F. 1896, Jan. 6	*MARTIN, HEBER GAMBLING ...	Littleport, Isle of Ely.
364	1875, Jan. 4	MARTIN, HOWARD ... ... *(Member of Council)*	27, Chancery Lane, W.C., and Bo Grange, Havelock Road, Croydon
1649	1889, Dec. 9	MARTIN, ROBERT FREWEN... ...	Mountsorrel, Loughborough.
2595	A. 1893, Oct. 4 F. 1898, Mar. 21	*MARTIN, SAMUEL	27, Chancery Lane, W.C.
1533	A. 1888, Dec. 10 F. 1892, July 4	*‡MARTIN, THOMAS	Hampden House, N.W.
1589	1889, Feb. 25	MARVIN, ALBERT EDWARD ...	Marl Hill, Carisbrooke, Isle of Wigh
3478	1899, Feb. 16	MARWICK, THOMAS PURVES ...	43, York Place, Edinburgh.
1598	1889, Mar. 4	MASON, CHARLES	Westgate, Louth, Lincolnshire.
1091	1884, Feb. 11	MASON, WILLIAM ARTHUR... ...	31A, Colmore Row, Birmingham.
1288	A. 1885, Dec. 7 F. 1888, Nov. 12	*MASSIE, FRANK, A.M.I.C.E. ...	Tetley House, Kirkgate, Wakefield.
696	1882, Jan. 16	MASTERMAN, GEORGE HUGHES ...	35, Coleman Street, E.C.
994	1883, Dec. 17	MATHEWS, GEORGE SPENCER, M.A. *(Cantab.)*, *(Member of Council)*	15, Waterloo Street, Birmingham.
995	1883, Dec. 17	MATHEWS, JOSEPH DOUGLAS, F.R.I.B.A.	11, Dowgate Hill, E.C.
2596	A. 1893, Oct. 4 F. 1896, Apr. 13	*MATHEWS, LEWIS OSLER, M.A. *(Cantab.)*	15, Waterloo Street, Birmingham.
39	1868, June. 15	MATHEWS, WILLIAM	21, Augustus Rd., Edgbaston, Birm
2840	1895, Sept. 2	MAUDE, ANTHONY FRITZ	Drumadreary, Irvinestown, Co. Fermanagh.
2842	1895, Sept. 2	MAUDE, CHRISTOPHER HUGH ...	Lenaghan, Enniskillen, Co. Fermanı
2841	1895, Sept. 2	MAUDE, MAURICE CEELEY... ...	Lenaghan, Enniskillen, Co. Fermanı
2843	1895, Sept. 2	MAUNSELL, RICHARD EDWARD ...	9, Ely Place, Dublin.
1356	A. 1887, Jan. 10 F. 1890, Jan. 6	*MAXWELL, FRANCIS WILLIAM ...	41, Corporation Street, Manchester
2844	1895, Sept. 2	MAXWELL, HENRY PERCEVAL ...	Lansdowne Lodge, Kenmare, Co. Ky
3333	1898. Oct. 29	*MAXWELL, JOSEPH ARCHIBALD...	South Bar, Banbury, Oxon.
3188	1897, Oct. 26	MAY, FRANCIS JOHN CHARLES...	Town Hall, Brighton, Sussex.

‡ Special Forestry Certificate.

Date of Election and of Transfer.	FELLOWS.	Address.
1891, Nov. 4	MAY, THOMAS HENRY	Haslin House, Harpur Hill, Buxton, [Derbyshire.
1891, Jan. 17	MEADE, THOMAS DE COURCY, M.I.C.E.	The Town Hall, Manchester.
A. 1892, Nov. 28 F. 1893, Aug. 9	*MELLENFIELD, JAMES HENRY ...	517, Hackney Road, N.E.
1891 May 23	MELLER, WILLIAM GALLOWAY ...	22, Cooper Street, Manchester.
1879, Dec. 8	MELLERSH, ALFRED WILLIAM ...	Godalming, Surrey.
1891, Jan. 17	MELLOR, THOMAS HENRY	1, Laurence Pountney Hill, E.C.
1887, Mar. 7	MENZIES, WILLIAM	Golspie, Englefield Green, Surrey.
A. 1894, Oct. 30 F. 1897, June 28	*MERCER, CHARLES EDWARD ...	Estate Office, S.E. Railway, Tooley St., London Bridge Station, S.E.
A. 1891. Jan. 17 F. 1894, Dec. 10	*MERRY, ARTHUR WALKER ...	17, High Street, Leighton Buzzard.
1891, May 23	MERRY, THOMAS	2, Guildhall Road, Northampton.
1894, Oct. 30	*MESSENGER, HENRY	77, Chancery Lane, W.C.
1882, Feb. 27	MESSENGER, WILLIAM HARRY ...	Town Hall Chambers, Guildford, Surrey.
1884, Dec. 8	*‡MICHELMORE, ALFRED	Berry Pomeroy Estate Office, Totnes,
1888, Nov. 12	MIDDLETON, REGINALD EMPSON...	17, Victoria Street, S.W. [Devon.
1891, Nov. 4	MIGOTTI, ALPHONZO, A.R.I.B.A.	4, St. George's Mansions, Red Lion Sq.,
1882, Jan. 16	MILLAR, CHARLES WILLIAM ...	14, Grafton Street, W. [W.C.
1891, Nov. 4	MILLAR, WILLIAM GALT	Friar Street, Reading.
1891, Nov. 4	MILLARD, EDWARD	47, Finsbury Circus, E.C.
1896, Oct. 28	*MILLER, JOHN EZRA, A.M.I.C.E.	12, Belle Vue Road, Sunderland.
1884, May 19	MILLS, SAMUEL MEALING	Orford Hill, Norwich.
1886, Feb. 22	MILLS, WILLIAM EDWARD	49, Hamilton Square, Birkenhead.
1891, Nov. 4	MILLYARD, JOHN WILLIAM ...	Estate Office, Saltmarshe Castle, Bromyard.
A. 1891, Nov. 4 F. 1892, Oct. 12	*MITCHELL, GEORGE SHARMAN ...	Upper Adhurst, Petersfield, Hants.
A. 1884, Dec. 8 F. 1890, Nov. 10	*MIXER, EDWARD	44, Charing Cross, S.W.
1890, Feb. 10	MONCKTON, HENRY PERCIVAL, F.R.I.B.A.	32, Walbrook, E.C.
1891, Nov, 4	MONIER-WILLIAMS, STANLEY FAITHFULL, A.R.I.B.A.	Broadway House, The Broadway, Walham Green, S.W.
1891, Jan. 17	MONTAGU, HENRY HAVELOCK ...	36, Coleman Street, E.C.
1890, Mar. 24	MOODY, THOMAS	20, Cockspur Street, S.W.
1889, Feb. 11	MOORE, ALFRED	144, Mile End Road, E., and 7, Leadenhall Street, E.C.
A. 1884, May 5 F. 1888, May 14	*MOORE, HAROLD EDWARD	41, Bedford Row, W.C.
1891, Nov. 4	MORGAN, BENJAMIN BRAUFORD	6, Bank Street, Norwich.
1890, Mar. 24	MORRIS, CHARLES	The Lodge, Radcliffe-on-Trent, Notts, & 27, Bridlesmith Gate, Nottingham.
1888, Jan. 23	MORRIS, EDWARD HENRY	Chirbury, Salop.
1891, May 23	MORRIS, GEORGE FIELD	67 and 68, Cheapside, E.C.
1891, Nov. 4	MORRIS, HAROLD GEORGE	67 and 68, Cheapside, E.C.
1884, Mar. 10	MORRIS, HERBERT	Lewes, Sussex.

‡ Special Forestry Certificate.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2538	A. 1892, Nov. 28 F. 1894, Oct. 10	*MORRIS, RICHARD PERCIVAL ...	10, Albert Mansions, Crouch Hill, N
2699	A. 1894, Oct. 30 F. 1899, Oct. 2	*MORRIS, WILLIAM HENRY ...	West House, Chirbury, Shropshire.
1127	A. 1884, Mar. 10 F. 1891, Jan. 5	MOSS, THOMAS WALTER	7, Gray's Inn Place, Gray's Inn, W.C
1895	A. 1890, Nov. 22 F. 1893, Apr. 10	*MOULD, GRAHAM HARLEY ...	25, Great James St., Bedford Row,
3065	1896, Oct. 28	MOXON, HERBERT WILLIAM ...	Building Works Department, R Arsenal, Woolwich, S.E.
965	A. 1883, May 25 F. 1891, Oct. 15	MOYES, JOHN HELENUS	66, St. Andrew's Street, Cambridge
2145	A. 1891, May 23 F. 1892, May 30	*MÜLLER, JOHN JOSEPH, A.R.I.B.A.	19, Bedford Road, Crouch End, N.
2017	1891, Mar. 14	MUNDY, HERBERT	Manvers Street, Trowbridge, Wilts
2334	1891, Nov. 4	MUNDY, THOMAS EDWARD, A.R.I.B.A	12, Buckingham Street, Adelphi, W
2335	1891, Nov. 4	MUNRO, DANIEL	39, Hope Street, Glasgow.
765	1882, Feb. 27	MUNRO, PHILIP	2, St. Stephen's Chambers, New Ball Street, Bristol.
3325	1898, Oct. 29	MURDOCK, ROBERT	91, Maxwell Road, Glasgow.
2845	1895, Sept. 2	MURPHY, JAMES FRASER, MAJOR	Estate Office, Boyle, Co. Roscommo
1406	1887, Dec. 19	MURRAY, GILBERT	Orchardlee, Girvan, Ayrshire.
3479	1899, Feb. 16	MURRAY, JOHN CAMPBELL	Pollock Estate Office, 53, Bothwel Glasgow.
3480	1899, Feb. 16	MURRAY, JOSEPH	Camperdown Estates Office, Dryb Lochee, Forfarshire.
1952	1891, Jan. 17	MURRAY, WILLIAM	School Board Offices, Victoria Em ment, W.C.
3481	1899, Feb. 16	MURRAY, WILLIAM WATSON ...	Catter House, Drymen, Stirlingshi
809	1882, May 8	MYNORS, WALTER CHARLES TOWERS	Little Ingestre, Stafford.
2336	1891, Nov. 4	MYRES, JOHN JAMES, A.M.I.C.E.	15, Chapel Street, Preston.
1591	1889, Feb. 25	NAPIER, HENRY BURROUGHES ...	Chippenham, Wilts.
164	A. 1869, Jan. 25 F. 1882, Mar. 13	NASH, ALFRED JAMES	Farnham, Surrey.
2018	1891, Mar. 14	NEALE, GEORGE JAMES	13, Lowndes Street, Belgravia, S.W
531	1879, Feb. 3	NEAME, FREDERICK	Macknade, Faversham, Kent.
795	1882, Apr. 24	NEATE, ARTHUR WEBB	Albion House, Newbury, Berks Hungerford.
3407	A. 1898, Oct. 29 F. 1900, Feb. 12	*NESBITT, JOHN OSCAR	6, Limefield Terrace, Levenshulme Manchester.
2337	1891, Nov. 4	NEVETT, FRANCIS WALTER	34, Brackenbury Road, Preston.
650	1889, Dec. 9	NEVETT, THOMAS	41, Fishergate, Preston, Lancashi
2102	1891, May 23	NEW, EDW. VORLEY, A.R.I.B.A.	62, George Street, Portman Squar
1719	1890, Feb. 10	NEWILL, ROBERT HENRY	Lydbury North, Shropshire.
1276	1885, Dec. 7	NEWMAN, ARTHUR HARRISON, F.R.I.B.A.	19A, Tooley St., London Bridge, S
856	A. 1882, Dec. 18 F. 1889, Nov. 11	NEWMAN, CHARLES HENRY ...	34, Savile Row, W.

Date of Election and of Transfer.	FELLOWS.	Address.
1872, Dec. 9 A. 1892, Nov. 28 F. 1894, Oct. 10	NEWMAN, FRANCIS ... ... *NEWMAN SAMUEL FRANK	Ryde, Isle of Wight. 33 and 34, Savile Row, W.
1891, Nov. 4 A. 1880, Jan. 19 F. 1886, Apr. 12	NEWMAN, THOMAS HARRY ... ... NEWMARCH, HENRY CHARLES ...	Rayne, Essex. 61, Lincoln's Inn Fields, W.C.
1895, Sept. 2	NEWPORT, GEORGE BELLINGHAM	Rockview, Inistioge, Co. Kilkenny.
1882, Feb. 13	NEWSON, HARRY CARSS	57, Lincoln's Inn Fields, W.C.
A. 1896, Oct. 28 F. 1899, Mar. 20	*NEWTON, EDWIN BENNETT BRIERLEY...	Vestry Hall, Harrow Road, W.
A. 1883, Dec. 17 F. 1889, Nov. 11	NEWTON THOMAS EDWIN	Bank Chambers, Winchester.
1891, Nov. 4	NICHOLSON, WILLIAM ABERNETHY	105, Cheapside, E.C.
1892, Feb. 26	NOCK, BENJAMIN BOWEN	48, Queen Street, Wolverhampton.
1875, Apr. 26	NOCKOLDS, MARTIN	Saffron Walden, Essex.
1885, Mar. 23	NOEL, BYRON BRUCE	Ockham, Ripley, Surrey.
1876, Mar. 20	NORMAN, JAMES MAURICE	Uxbridge, Middlesex.
1890, Feb. 10	NORMAN, WILLIAM HORACE ...	34, Great George Street, S.W.
A. 1894, Feb. 23 F. 1900, May, 21	*NORMAN, JAMES NOEL	Dunkery Lodge, Putney, S.W.
A. 1878, Feb. 11 F. 1890, Mar. 10	NORRIS, WALTER HENRY	60, Fore Street, Hertford.
1868, July 20	NORTH, GEORGE	Palace Chambers, 9, Bridge Street, S.W.
1883, May 25	*NORTH, GEORGE FREDERIC... ...	Stratfield Saye, Mortimer, Berks.
1889, Jan. 28	NORTHCROFT, HENRY	8, St. Martin's Place, Charing Cross, W.C.
1891, Mar. 14	NORTON, THOMAS HERBERT, B.A. (*Oxon.*)	7, Whitehall Place, S.W.
1871, Feb. 13	NOTLEY, RICHARD ALBERT... ...	80, Cornhill, E.C.
1882, Jan. 16	NOTLEY, ROBERT PLEDGE, F.R.I.B.A.	35, Bucklersbury, E.C.
A. 1881, Dec. 19 F. 1887, Feb. 7	NOTTAGE, WILLIAM GRIGGS ...	Land Registry (Survey Department), 34, Lincoln's Inn Fields, W.C.
1895, Sept. 2	NUNN, WILLIAM BOLTON	George Street, Wexford, & Castlebridge.
A. 1895, Oct. 24 F. 1898, May 2	*NUTTALL, HERBERT	20, Market Street, Bury, Lancashire.
A. 1891, Nov. 4 F. 1894, Oct. 10	*OAKLEY, CHRISTOPHER PERCIVAL	10, Waterloo Place, S.W.
1891, Mar. 14	OAKLEY, EDWARD BENJAMIN ...	Westville, Parkstone, Dorset.
A. 1891, Jan. 17 F. 1892, Dec. 5	*OAKLEY, JOHN HUBERT	10, Waterloo Place, S.W.
A. 1891, Jan. 17 F. 1894, Jan. 22	*OGDEN, MICHAEL GUY	80, Coleman Street, E.C., and 4, High Street, Wimbledon, S.W.
A. 1897, Oct. 26 F. 1899, Oct. 2	*OGILVIE, ROBERT MATHEWSON	10, Boltro Rd., Hayward's Heath, Sussex.
1888, Mar. 5	OLDROYD, LINLEY...	5, Oxford Place, Leeds.
1891, Nov. 4	OLIPHANT, GEORGE A. J.	Chatley House, Norton St. Philip, near Bath.
1891, Nov. 4	OLIVER CHARLES EDWARD	Selby Lodge, Consett, Co. Durham.
1886, Feb. 22	ORGILL, JOHN BERWICK	21, Hart St., Bloomsbury Square, W.C.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2343	1891, Nov. 4	ORR, CECIL, A.R.I.B.A.	1, Suffolk Street, Dublin.
2849	1895, Sept. 2	OSBORNE, CHARLES W.	Rosnaree, Slane, Co. Meath.
3051	A. 1896, June 2 F. 1899, June 26	*OSENTON, CHARLES	Ashtead and Leatherhead, Surrey.
1896	A. 1890, Nov. 22 F. 1892, Nov. 14	*OSENTON, GEORGE, JUN.	Oxted, Surrey.
1851	1890, Nov. 22	OSMOND, EDWARD	Oakford, Upton Pyne, Devon.
2850	1895, Sept. 2	OWEN, ARTHUR JOHN	Shanvaghey, Ballacolla, Queen's Cou
1721	1890, Feb. 10	OWEN, HENRY	Dana Chambers, Shrewsbury.
2344	1891, Nov. 4	OWEN, RICHARD NEWSHAM ...	Haughton, Tarporley.
1098	A. 1884, Feb. 11 F. 1890, Jan. 6	OWEN, THOMAS HENRY RULE ...	High St., Haverfordwest, Pembrokes
183	1869, Mar. 8	OWEN, THOMAS RULE	High St., Haverfordwest, Pembrokes
1628	1889, Nov. 11	OWEN, WILLIAM SCOTT	Cefngwifed, near Newtown, Montgom shire.
2021	1891, Mar. 14	PAGE, GEORGE FREDERICK... ...	Eagle Chambers, Kingston-on-Thami
1042	1884, Jan. 14	PAGE, ROBERT, F.R.I.B.A.	9, Denman Street, London Bridge, S
2702	A. 1894, Oct. 30 F. 1898, Jan. 24	*†PAGE, STANLEY HATCH	1, Harbour Street, Ramsgate, Kent.
406	A. 1875, Nov. 8 F. 1881, Apr. 4	PAIN, COARD SQUAREY...	14, North John Street, Liverpool.
2601	A. 1893, Oct. 4 F. 1897, June 28	*PAIN, GEORGE LLOYD	35, Bedford Street, Woburn, Beds.
966	A. 1883, May 25 F. 1894, Oct. 10	*PAIN, JAMES	Lowlands, Wallington, Fareham, Ha
2345	1891, Nov. 4	PAIN, WILLIAM, F.R.I.B.A.	63, Lincoln's Inn Fields, W.C.
2346	1891, Nov. 4	PAINE, EDWARD JABEZ	11, Great James St., Bedford Row,
1535	A. 1888, Dec. 10 F. 1892, Oct. 12	*‡PALAMOUTAIN, JOSEPH WM. ...	Cloverley Estate Office, Whitchurch, S
1815	1890, May 29	PARK, PHILIP SAMUEL...	The Oaks, Penwortham, Preston, L
1315	1886, May 3	PARK, WILLIAM PHILIP	18, Winckley Street, Preston, Lanc
1383	1887, Mar. 21	PARKER, CHARLES ALFRED... ...	21, Finsbury Circus, E.C., and Woo Mortimer Place, Maldon, Essex.
1269	1885, May 18	PARKER, JOHN, A.M.I.C.E.	Mansion House, Hereford.
2348	1891, Nov. 4	PARKER, STANLEY...	427, Edgware Road, W.
567	A. 1880, Jan. 19 F. 1888, Jan. 9	PARKER, THE HON. CECIL THOMAS	Eccleston, Chester.
1852	1890, Nov. 22	PARKER, WILLIAM HENRY	3, Foregate Street, Worcester.
628	A. 1881, Dec. 5 F. 1884, Nov. 10	PARKIN, JOHN ROBT., A.M.I.C.E.	Idridgehay, near Derby.
1853	1890, Nov. 22	PARKIN, WILLIAM...	Babworth, Retford, Notts.
865	1883, Jan. 15	PARMETER, FRANK	Middle Lees, Clitheroe, Lancashir
2104	1891, May 23	PARNACOTT, ALFRED	93, York Rd., Westminster Bridge Rd. & The Ferns, Laurel Grove, Peng
910	1883, Mar. 12	PARR, SAMUEL	New Broad Street House, E.C.
2022	1891, Mar. 14	PARR, SAMUEL GEORGE	New Broad Street House, E.C.

† Special Sanitary Science Certificate.

‡ Special Forestry Certificate.

Date of Election and of Transfer.	FELLOWS.	Address.
A. 1889, Dec. 9 F. 1893, Nov. 13	*PARRIS, CHARLES JOHN	Groombridge, Sussex.
A. 1887, Dec. 19 F. 1891, Mar. 16	*PARRY, RICHARD, A.M.I.C.E. ...	82, Victoria Street, and 27, Great George Street, S.W.
1888, Nov. 26	PARSONS, FRANK DONISTHORPE...	Misterton, Crewkerne, Somerset.
1890, Nov. 22	PARSONS, FREDERICK CECIL ...	163, North Street, & 9, Marine Parade, Brighton.
1890, Mar. 10	PARSONS, HENRY JOHN DONNE ...	Bamfylde House, Exeter.
A. 1883, May 25 F. 1888, Dec. 10	PARSONS, ROBERT MAURICE PETERS	Misterton, Crewkerne, Somerset.
A. 1890, Nov. 22 F. 1894, Oct. 10	*PARTRIDGE, EDWARD JOHN... ...	Bank Chambers, 39, George St., Richmond, Surrey, & 50, Lincoln's Inn Fields, W.C.
A. 1896, Oct. 28 F. 1899, Mar. 20	*PATCH, SHIRLEY HUTCHINS ...	171, University St., Belfast, Ireland, & The Chestnuts, Havelock Rd., Addiscombe.
1890, Feb. 24	PATERSON, CHARLES	Canford Estate Office, Wimborne, Dorsetshire.
1881, Jan. 24	PATTISSON, JACOB LUARD, C.B.....	Claremont Lodge, Cobham, Surrey.
A. 1883, May 25 F. 1888, May 14	*PAULL, ALAN	6, Quality Court, Chancery Lane, W.C.
1880, Dec. 13	PAYNE, ALEXANDER, F.R.I.B.A. ...	Norfolk House, Victoria Embankment, W.C.
1882, Jan. 30	PAYNE, FREDERICK	10, Market Square, Bromley, Kent.
A. 1893, Oct. 4 F. 1898, Jan. 24	*PEARCE, FRED W....	Surveyor's Office, Town Hall, Twickenham.
1891, Nov. 4	PEARD, JOHN GRIGG	North Curry, near Taunton.
1891, Nov. 4	PEARSE, WILLIAM	Stoliford, Modbury, Devon.
1891, Nov. 4	PEARSON, ALFRED, A.M.I.C.E. ...	Estate Offices, Dukinfield.
A. 1895, Oct. 24 F. 1896, Oct. 1	*PEARSON, HARRY JOHN, A.R.I.B.A.	Architectural Department, Local Government Board, Whitehall, S.W.
A. 1893, Oct. 4 F. 1898, Jan. 10	*PEARSON, HOWARD	12, Savernake Road, Hampstead, N.W.
1885, May 18	PECK, WILLIAM ROLAND	1, Cockspur Street, S.W.
1891, Nov. 4	PEIRSON, GEORGE BRODRICK ...	Baldersby, S.O., Yorkshire.
1891, Nov. 4	PEIRSON, HENRY THOMAS	Brancepeth, Co. Durham.
1891, May. 23	PELLS, ARTHUR	Beccles and Lowestoft.
1889, Dec. 9	PEMBERTON, CHARLES OLIVER PAGET	69, Temple Row, Birmingham.
1868, Jan. 15	PENFOLD, JOHN WORNHAM, F.R.I.B.A. (*Honorary Secretary*)	30, Great George Street, S.W.
1895, Sept. 2	PENROSE, JAMES EDWARD	Estate Office, Lismore Castle, Lismore.
1896, Jan. 21	PENROSE, WILLIAM ROBERT ...	Estate Office, Rose Lane, Waterford.
1876, May 8	PEPPERCORN, JOHN HUTCHINSON	Manor House, Eaton Socon, St. Neots.
1891, Nov. 4	PERKINS, JOSEPH	Frisby-on-the-Wreake, Leicester.
A. 1886, Dec. 6 F. 1891, May 25	*PERKINS, WALTER FRANK	Portswood House, Southampton, Hants.
1891, May 23	PERRIAM, ALFRED JOSEPH	43, Cannon Street, E.C.
1891, Nov. 4	PETHER, HARRY	8, Craig's Court, Charing Cross, S.W.
1885, Feb. 9	*PETO, JAMES WINDER	6, Market Place, Reading, Berks.
1876, Feb. 21	PHILLIPS, FREDERICK HAMILTON	Beechcroft, Temple Ewell, nr. Dover, Kent

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
3164	A. 1897, Feb. 17 F. 1897, Dec. 6	*PHILLIPS, WILLIAM	12, Dartmouth Row, Blackheath, S.E
1652	1889, Dec. 9	PHILLIPS, WILLIAM EDWIN	Eagle Chambers, Kingston-on-Thame
1043	1884, Jan. 14	PICKERING, WILLIAM CLOVES ...	Rhewl House, Mostyn, Flintshire.
2357	1891, Nov. 4	PIERCY, HENRY ONSLOW	The Elms, Lowthorpe.
1617	1889, Apr. 1	PIERSON, CHARLES	29, Cooper Street, Manchester.
968	A. 1883, May 25 F. 1886, Nov. 8	*†PILDITCH, PHILIP EDWARD ...	2, Pall Mall East, Charing Cross, S. and Weybridge, Surrey.
1704	1890, Jan. 27	PINKS, EDWIN CHARLES	Parliament Mansions, Victoria Str S.W.
3119	A. 1896, Oct. 28 F. 1897, Oct. 4	*PINNEY, FREDERICK WYLDBORE DIGBY	6, Waterloo Street, Birmingham.
2023	1891, Mar. 14	POPPLE, JOHN...	19, St. Hilda's Terrace, Whitby.
2359	1891, Nov. 4	PORTER, JOHN MERRY...	The Estate Office, Colwyn Bay, N Wales.
2360	1891, Nov. 4	POSTON, HENRY	39, Lombard Street, E.C.
1977	A. 1891, Jan. 17 F. 1894, Nov. 12	*POTTER, HERBERT GEORGE... ...	28, Roslyn Hill, Hampstead, N.W.
2361	1891, Nov. 4	POTTS, JAMES...	Stanbeck, Workington, Cumberland.
224	1870, Jan. 24	POUNDLEY, JOHN EDWARD	Kerry, Newtown, Montgomeryshire.
2707	A. 1894, Oct. 30 F. 1898, Oct. 3	*POWELL, CHARLES REGINALD EVENDEN	Okehampton Park Estate Office, O hampton, Devon.
1856	1890, Nov. 22	POWELL, FREDERICK ATKINSON, F.R.I.B.A.	344, Kennington Park Road, S.E., Agincourt Square, Monmouth.
1022	A. 1883, Dec. 17 F. 1891, Mar. 2	POWELL, HUBERT JOHN	Hill Lodge, Lewes, Sussex.
342	A. 1874, Feb. 16 F. 1880, Nov. 22	POWELL, REGINALD HENRY ...	St. Swithun's Lane, High Street, Le Sussex.
3033	1896, June 2	POWELL, ROBERT	Estate Office, Westport, Co. Mayo.
2543	A. 1892, Nov. 22 F. 1896, June 26	*PRALL, HERBERT ALEXANDER ...	Martin's Bank Chambers, Dartford, 150, Eastgate, Rochester, Kent.
1900	A. 1890, Nov. 27 F. 1896, June 26	*PRALL, HERBERT EDWARD	150, Eastgate, Rochester, and Mar Bank Chambers, Dartford, Kent.
2362	1891, Nov. 4	PREEDY, FREDERIC	Caldecote, St. Neots, Huntingdonsh
1536	A. 1888, Dec. 10 F. 1892, Dec. 5	*PRESTON, SAMUEL DAVID	Vestry Hall, Camberwell, S.E.
1781	1890, Apr. 14	PRICE, FRANCIS HOLBORROW GLYNN	Longlands Place, Swansea, Glamor shire.
2363	1891, Nov. 4	PRICE, JOHN, A.M.I.C.E.	City Surveyor's Office, The Co House, Birmingham.
2544	A. 1892, Nov. 28 F. 1895, Nov 1	*PRICE, RICHARD ARNOLD	340, Balham High Road, Upper Too and 2, Clapham Park Road, S.W.
2107	1891, May 23	PRIDMORE, ALBERT EDWARD ...	2, Broad Street Buildings, E.C., an High Street, Watford, Herts.
1857	1890, Nov. 22	PRIDMORE, ARTHUR STIRLING ...	140, Junction Road, N.
2708	A. 1894, Oct. 30 F. 1899, Mar. 20	*PRITCHARD, HERBERT ALFRED ...	14, Warwick Road, Earl's Court, S.
1816	1890, May, 29	PRITCHETT, ELLIS HERBERT ...	Regent Circus, Swindon, Wilts.

† Special Sanitary Science Certificate.

Date of Election and of Transfer.	FELLOWS.	Address.
1885, Nov. 9	PUNCHARD, FREDERICK	Underley Estate Office, Kirkby Lonsdale, Westmoreland.
A. 1890, Jan. 6 F. 1895, Feb. 18	*PUNCHARD, FREDERICK BURT ...	Enville Estate Office, near Stourbridge.
1895, Sept. 2	PURCELL, WILLS W.	Dromore, Mallow.
A. 1884, Jan. 28 F. 1889, Jan. 28	PURCHASE, EDWARD KEYNES ...	Mansion House Chambers, 11, Queen Victoria Street, E.C.
1898, Feb. 18	PURDIE, ANTHONY	241, West George Street, Glasgow.
A. 1895, Oct. 24 F. 1897, Jan. 11	*PURVIS, CHARLES JAMES	57, Ommaney Road, New Cross, S.E.
1884, Dec. 8	PYM, GEORGE EDWIN	Doods, Reigate, Surrey.
1895, Sept. 2	QUIN, RICHARD	9, Crosthwaite Park West, Kingstown, Ireland.
1895, Sept. 2	QUIN, WILLIAM THOMAS CUFFE...	Kilbeggan, Co. Westmeath.
A. 1894, Feb. 23 F. 1896, Oct, 1	*RAFFETY, HERBERT WILLIAM ...	71, Temple Row, Birmingham, and Leek Wootton, Warwick.
1888, Feb. 20	RAIKES, COLONEL GEORGE WHITTINGTON	Ragley Estate Office, Alcester, Redditch.
1891, Mar. 14	RANDALL, RICHARD	Royal Engineers' Office, Curragh Camp, Ireland.
1891, Nov. 4	RANSFORD, BENJAMIN HERBERT	14, Bennett Street, Bath.
1896, Oct. 28	RAVES, BERTRAM ADAMS, A.M.I.C.E.	Royal Engineer Office, Valletta, Malta.
1883, Feb. 26	RAWLENCE, ERNEST ALFRED ...	Newlands, Salisbury.
1891, Mar. 14	RAWLENCE, JAMES EDWARD ...	The Canal, Salisbury, Wilts.
1890, Nov. 22	RAWLINS, HENRY. ADAIR, A.R.I.B.A.	46, Queen Victoria Street, E.C.
1891, Nov. 4	RAWLINS, WILLIAM	45, King William Street, E.C.
1868, Oct. 26	RAYNBIRD, HUGH EDWARD ...	Basingstoke, Hants.
1888, Dec. 10	REA, JOHN MARCUS BEAUMONT...	8, Winckley Street, Preston, and Lytham, Lancashire.
1898, Oct. 29	REA, JOHN TODD	Royal Engineer Office, Curragh Camp, Co. Kildare, Ireland.
1884, Apr. 21	READ, GEORGE HUNTLY	27, Albany Street, N.W.
1891, May 23	REBBECK, EDWARD WISE	Stafford Lodge, Bournemouth.
1891, Nov. 4	REBBECK, THOMAS WARREN ...	Gervis Place, Bournemouth.
1890, Nov. 22	REES, ITHEL TREHARNE, M.I.C.E.	Guildhall Chambers, Cardiff.
1880, Dec. 13	REES, WILLIAM ANDREW	7, Cornhill, E.C.
1879, Apr. 28	REES, WILLIAM GEORGE	Holly House, Newport, Monmouthshire.
1891, Nov. 4	REES, WILLIAM JOHN	The Laurels, Swansea.
1891, Nov. 4	REEVE, KINGSNORTH	27, High Street, Rye, Sussex, and High Street, Lydd, Kent.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
3121	A. 1896, Oct. 28 F. 1897, Oct. 4	*REFFELL, CHARLES ARTHUR ...	8, Alwyne Villas, Maybury Rd., Woki Surrey.
3334	1898, Oct. 29	*REID, ARTHUR FLETCHER	5, Clement's Inn, Strand, W.C.
937	1883, Apr. 30	RENDELL, ARTHUR STEPHEN ...	Market Terrace, Newton Abbot.
3071	1896, Oct. 28	*RENTON, GEORGE	1, Albert Street, Harrogate, Yorkshi
802	A. 1882, Apr. 24 F. 1890, Jan. 27	REX, FRANCIS HERBERT	311, Kentish Town Road, N.W.
453	A. 1876, May 8 F. 1881, Dec. 6	RICH, ROBERT	Didcot, Berks.
890	1883, Feb. 12	RICHARDS, ALFRED	Tottenham, N., and 18, Finsbury Cir
2027	1891, Mar. 14	RICHARDS, GEORGE EDWARD ...	Stour Lodge, Wimborne, Dorset.
2110	1891, May 23	RICHARDS, WILLIAM	Tottenham, N., and 18, Finsbury Cir
1955	1891, Jan. 17	RICHARDSON, CHARLES	15, Barn Hill, Stamford, Lincolnshire
1746	1890, Feb. 24	RICHARDSON, GEORGE	5, Lonsdale Street, Carlisle.
1817	1890, May 29	RICHARDSON, JAMES	15, Barn Hill, Stamford, Lincolnshire
461	1876, Dec. 18	RICHARDSON, JOHN, M.I.C.E. ...	Methley Park, Leeds.
2466	A. 1891, Nov. 4 F. 1892, May 30	*RICHARDSON, OLIVER ARCHER ...	Sun Fire Office, Threadneedle St., E
1705	1890, Jan. 27	RICHMOND, WALTER COLERIDGE...	Ivy Rock, Vicar's Cross, Chester.
303	1873, Feb. 10	RICKMAM, THOMAS Millar, A.R.I.B.A. (*Past-President*) ...	8, Montague Street, Russell Sq., W..
2373	1891, Nov. 4	RIDDETT, WILLIAM HAMMOND ...	Townhall Chambers, Ryde, Isle of Wi
914	1883, Apr. 2	RIDDLE, FREDERICK HENRY BRIMBLE	14, Pont Street, Belgrave Square, S.
3585	A. 1899, Oct. 30 F. 1900, June 27	*RIDLEY, PERCY EDWARD	34, Gorst Road, Wandsworth Comm S.W.
2028	1891, Mar. 14	RIGDEN, FRANCIS	Salisbury, Wilts.
2111	1891, May 23	RIGG, CHARLES	24, High Street, Cardiff.
1517	1888, Dec. 10	RIGHTON, EDWARD GRANTHAM...	High Street, Evesham, Worcestersh.
2374	1891, Nov. 4	RIX, GEORGE KERRY	Somerleyton, near Lowestoft.
3482	1899, Feb. 16	ROBB, WILLIAM JOHNSTON... ...	53, Bothwell Street, Glasgow.
423	A. 1876, Jan. 24 F. 1890, Nov. 10	ROBERTS, CHARLES QUINCEY ...	61, Lincoln's Inn Fields, W.C.
2858	1895, Sept. 2	ROBERTS, EDWARD USSHER ...	The Rent Office, Longford.
1722	1890, Feb. 10	ROBERTS, HENRY CROYDON ...	78, King William Street, E.C.
120	1868, Aug. 17	ROBERTS, RICHARD	42, New Broad Street, E.C.
3300	1898, Feb. 18	ROBERTSON, WALTER WOOD ...	3, Parliament Square, Edinburgh.
754	A. 1882, Feb. 13 F. 1891, May 25	ROBEY, ROBERT	Oaklands, East Tytherley, Romsey, Hants.
72	1868, July 13	ROBINS, EDWARD COOKWORTHY, F.R.I.B.A.	46, Berners Street, Oxford Street,
2498	A. 1892, Feb. 26 F. 1895, Nov. 1	*ROBINS, PHILIP SEYMOUR	5, Waterloo Place, Pall Mall, S.W.
603	1881, Jan. 24	ROBINS, WILLIAM H., A.M.I.C.E.	82A, New Street, Birmingham.
1350	1887, Jan. 10	ROBINSON, CHARLES EDWARD ...	36, Coleman Street, E.C.
2112	1891, May 23	ROBINSON, EDMUND ARTHUR ...	Lee-on-the-Solent, Gosport, Hants.

Date of Election and of Transfer.	FELLOWS.	Address.
1891, Nov. 4	ROBINSON, GEORGE EDWARD ...	9, Tacketts Street, Blackburn.
1881, Apr. 4	ROBINSON, HENRY, M.I.C.E. ...	Westminster Chambers, 13, Victoria St. [S.W.
1895, Sept. 2	ROBINSON, HENRY ARTHUR ...	Roundstone, Galway.
A. 1891, Nov. 4 F. 1894, Oct. 10	*ROBINSON, HENRY HERBERT ...	New Inn Chambers, Wych St., Strand, [W.C.
1895, Sept. 2	ROBINSON, JAMES DODWELL ...	Seamount, Sligo.
1895, Sept. 2	ROBINSON, RICHD. ST. GEORGE...	Seamount, Sligo.
A. 1897, Oct. 26 F. 1898, Oct. 3	*ROBINSON, THEODORE RICHARD...	25, Campden Hill Gardens, Kensington.
1895, Sept. 2	ROBINSON, WILLIAM GODFREY ...	Roughan Park, Dungannon, Co. Tyrone.
1872, Dec. 9	ROBSON, EDWARD ROBERT, F.R.I.B.A.	Palace Chambers, 9, Bridge St., S.W., and 2, The Paragon, Blackheath, S.E.
1895, Sept. 2	ROCHFORT, WILLIAM	Cahir Abbey, Cahir, Co. Tipperary.
1888, Feb. 6	RODERICK, JOHN	2, Temple Row West, Birmingham.
1890, Feb. 24	RODHAM, JOHN	16, Finkle Street, Stockton-on-Tees.
1895. Sept. 2	ROE, WILLIAM JAMES, B.A. (*Dublin*)	11, Westland Row, Dublin.
1895, Sept. 2	ROGERS, HARRY	The Hill, Monaghan.
A. 1896, Oct. 28 F. 1897, June 28	*ROGERS, HORACE MORDAUNT ...	50, Belgrave Road, South Belgravia, S.W.
1884, Dec. 8	ROGERS, WILLIAM BENNETT ...	78, Gloucester Rd., South Kensington, S.W.
1889, Jan. 28	ROKER, MITCHEL JOHN	Snowdenham, Branksome Park Bourne- [mouth.
A. 1874, Dec. 7 F. 1876, Jan. 24	ROLLESTON, SIR JOHN FOWKE LANCELOT (*Vice-President*) ...	Grey Friars, Leicester.
A. 1883, May 25 F. 1889, Jan. 28	*ROLLESTON, WILLIAM GUSTAVUS STANHOPE	Grey Friars, Leicester.
A. 1886, Dec. 6 F. 1887, Nov. 14	*ROODS, ALFRED	School Board Offices, Victoria Embankment, W.C.
A. 1896, Oct. 28 F. 1900, May 21	*ROOK, JOSEPH TAYLOR	5, Lonsdale St., Carlisle, Cumberland.
1891, May 23	ROOKE, ALFRED BRADLEY	11, Great James St., Bedford Row, W.C.
1891, Nov. 4	ROONEY, SAMUEL	Cefn Mably Chambers, 9, Quay St., Cardiff.
A. 1889, Dec. 9 F. 1891, Jan. 5	ROPER, JOHN SIMPSON, A.M.I.C.E.	32, Market Square, Lancaster.
A. 1883, Nov. 12 F. 1887, Jan. 10	ROPER, WILLIAM	49, Mount Pleasant Road, Tunbridge Wells, Kent.
1888, Apr. 30	ROSE, THOMAS	21, Prince of Wales Road, Norwich.
1898, Oct. 29	*ROWLAND, JOSEPH SAMUEL ...	Bridge Chambers, Burton-on-Trent, Staffs.
A. 1883, Apr. 30 F. 1890, Jan. 27	ROWLANDSON, CHRISTOPHER ...	The College, Durham.
1891, May 23	ROYCE, DAVID NEEDHAM	Oakham, Rutland.
1891, May 23	ROYCE, JOHN	Oakham, Rutland.
1891, Mar. 14	RUAULT, JOHN GUSTAVE PETER...	17, Southampton St., Bloomsbury, W.C.
1891, Mar. 14	RUDKIN, ARTHUR JOHN	St. Ann's, Bromley, Kent.
1891, Nov. 4	RUMBALL, AUBREY	St. Alban's, Herts.
A. 1883, May 25 F. 1890, Jan. 6	*RUNDLE, EDWARD COLLINS ...	Bedford Office, Tavistock, Devon.
A. 1883, Dec. 17 F. 1889, Feb. 25	RÜNTZ, ERNEST AUGUSTUS... ...	10, 11, and 12, Walbrook, E.C.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
315	A. 1873, Dec. 8 F. 1875, Nov. 8	RUSHWORTH, EDMUND WALTER...	22, Savile Row, W.
2031	1891, Mar. 14	RUSSELL, MURRAY LAWRENCE...	3, King Street, Cheapside, E.C.
1547	1889, Jan. 11	RUTHERFORD, JAMES AUGUSTINE	Estate Office, Highclere Park, Newbu
998	1883, Dec. 17	RUTLEY, CHARLES...	11, Dowgate Hill, E.C.
1818	1890, May 29	RUTLEY, FRANK	11, Dowgate Hill, E.C.
2866	1895, Sept. 2	RUTTLEDGE, FRANCIS...	Coolbawn, Enniscorthy.
2867	1895, Sept. 2	RUTTLEDGE, THOMAS HENRY BRUEN	42, North Great George St., Dub Ireland.
2380	1891, Nov. 4	RYAN, WILLIAM PATRICK	1, Metal Exchange Buildings, Whitti ton Avenue, Leadenhall Street, E.C
466	A. 1876, Dec. 18 F. 1880, Nov. 8	RYDE, ARTHUR LYON...	29, Great George Street, S.W.
909	A. 1883, Feb. 26 F. 1891, June 29	RYDE, CHARLES BERTRAM ...	29, Great George Street, S.W.
421	1876, Jan. 20	SADLER, GEORGE WILLIAM ...	467, High Street, Cheltenham.
1233	A. 1884, Dec. 8 F. 1894, May 28	*SADLER, GEORGE WILLIAM, JUN., A.R.I.B.A.	Duchy of Lancaster Office, Lancas Place, W.C.
256	1871, Feb. 13	ST. QUINTIN, PERRY	50, Threadneedle Street, E.C.
438	A. 1876, Mar. 20 F. 1889, Nov. 25	ST. QUINTIN, RICHARD SAMUEL	50, Threadneedle Street, E.C.
1518	1888, Dec. 10	SALTER, WILLIAM HERBERT ...	The Hall, Attleborough, Norfolk.
1788	1890, Apr. 14	SAMPLE, CHAS. HERBERT, B.A. (*Cantab.*)	Matfen, near Newcastle-on-Tyne.
1436	1888, Jan. 9	SAMPLE, THOMAS	Bothal Castle, near Morpeth, North berland.
1789	1890, Apr. 14	SAMPLE, WILLIAM COLLINGS ...	Tritlington Hall, Morpeth, Northum land.
1682	A. 1889, Dec. 9 F. 1891, Oct. 15	SAMPSON, WILLIAM	Beauchief Abbey, near Sheffield.
1384	1887, Mar. 21	SAMUEL, WILLIAM JOHN	Newport Pagnell, Bucks.
2116	1891, May 23	SANCTUARY, CAMPBELL FORTESCUE STAPLETON	Mangerton, Melplash, Dorset.
397	1875, Apr. 26	SANDAY, GEORGE HENRY	Highfield, Uxbridge.
2869	1895, Sept. 2	SANDERS, CHARLES STEWART ...	Sanders Park, Charleville, Co. Cork...
2868	1895, Sept. 2	SANDERS, ROBERT MASSY DAWSON	Sanders Park, Charleville, Co. Cork...
2987	A. 1895, Oct. 24 F. 1899, Mar. 20	*SANDFORD, CHARLES SIDNEY ...	16, St. James Row, Sheffield.
3483	1899, Feb. 16	SANDFORD-THOMPSON, WILLIAM JAMES	Balmanno, Marykirk, Kincardineshi
458	1876, Nov. 27	SANDY, HENRY	Newport Road, Stafford.
1696	A. 1890, Jan. 6 F. 1892, Nov. 14	*SAUNDERS, CHARLES HERBERT...	150, Finchley Road, Hampstead, N.W
177	1869, Feb. 22	SAUNDERS, EDWARD	48, Bishopsgate Street Within, E.C.
2382	1891, Nov. 4	SAUNDERS, MARTIN L., A.R.I.B.A.	4, Coleman Street, E. C.
2032	1891, Mar. 14	SAUNDERS, RUTLAND	Care of Messrs. E. Saunders and 48, Bishopsgate Street Within, E.
1147	A. 1884, April 21 F. 1899, Oct. 2	*SAUNDERS, SAMUEL BROWN ...	Estate Office, L. & S. W, Rail Waterloo Station, S.E.

Date of Election and of Transfer.	FELLOWS.	Address.
1891, Nov. 4	SAUNDERS, THEODORE RIDLEY ...	Belgrave Chambers, Ventnor, Isle of Wight.
1868, Aug. 17	SAVILL, ALFRED ... ... *(Member of Council)*	39, New Broad Street, E.C., & Chigwell, Essex.
A. 1882, Mar. 13 F. 1889, Mar. 18	SAVILL, ALFRED, JUN.	39, New Broad Street, E.C.
A. 1890, Nov. 22 F. 1893, Aug. 9	*SAVILL, EDWIN	39, New Broad Street, E.C.
1898, Feb. 18	SAYER, GEORGE WILLIAM	Royal Engineer Office, Singapore, Straits Settlement.
A. 1883, Jan. 15 F. 1892, Feb. 1	SCAMMELL, THOMAS	1, St. Stephen Street, Bristol.
A. 1894, Oct. 30 F. 1899, Oct. 2	*SCOTT, ARCHIBALD LACY	Bury St. Edmunds, Suffolk.
1891, Nov. 4	SCOTT, AUGUSTUS FREDERIC ...	24, Castle Meadow, Norwich.
1887, Mar. 21	SCOTT, HENRY LACY	Bury, St. Edmund's Suffolk.
1895, Sept. 2	SCOTT, JOHN RUSSELL	60, Mountjoy Square, Dublin.
1896, June 2	SCOTT, JOHN WILLIAM...	Roslevan, Ennis, Co. Clare.
1897, Oct. 26	SCOTT, ROBERT	115, Wellington Street, Glasgow.
1900, Feb. 23	*SCOTT-SMITH, ARTHUR COURTNEY	10, Gandy Street, Exeter, Devon.
A. 1881, Dec. 5 F. 1882, Apr. 24	SCOVELL, JOHN	29, St. Margaret's Road, Oxford.
A. 1882, Feb. 13 F. 1889, Mar. 4	SCRIVEN, CHARLES HERBERT ...	Agency Office, Thong, Gravesend, Kent.
1890, Nov. 22	SCRIVEN, RICHARD GEORGE ...	Castle Ashby, Northampton.
1894, Oct. 30	*SCRUBY, WILLIAM THOMAS ...	Post Office Terrace, Cambridge.
1890, Jan. 27	SEBASTIAN-SMITH, CHARLES ...	Shipley, Derby, & Friar Lane, Leicester.
A. 1896, Oct. 28 F. 1899, Oct. 2	*SECKER, JOHN EUSTACE	Estate Office, Warrington, Lancashire.
A. 1897, Oct. 27 F. 1900, May, 21	*SEDGWICK, ALFRED SYDNEY EDWARD	195, Tulse Hill, S.W.
1879, Mar. 3	SELBY, CHARLES FREDERIC ...	21, Queen Anne's Gate, S.W.
1890, Feb. 10	SELBY-BIGGE, CHARLES P. O. ...	Didlington Estate Office, Brandon, Norfolk.
1890, Nov. 22	SENIOR, HARRY SAMUEL	Sturminster Newton, Dorset.
A. 1896, Oct. 28 F. 1897, June 28	*SEXTON, GEORGE ALEXANDER ...	Bank Chambers, 42, High Road, Kilburn, N.W.
A. 1882, Nov. 13 F. 1886, May 3	SEYMOUR, RICHARD ARTHUR HAMILTON	46, Earl Street, Maidstone, Kent.
A. 1884, Jan. 14 F. 1891, Mar. 16	SHACKLE, EDWARD NEILD	7, Hobart Place, S.W.
1898, Feb. 18	SHARP, JOHN GRANT	74, Buchanan Street, Glasgow.
1876, Mar. 6	SHAW, JOHN ... ... *(President.)*	College Place, Derby.
A. 1883, May 21 F. 1890, Mar, 10	SHAW, JOHN, JUN.	The College, All Saints', Derby.
A. 1897, Oct. 26 F 1898, Oct. 3	*SHEARBURN, HARRY, B.A. *(Cantab.)*	Munstead, Godalming, Surrey.
1890, May 29	SHELMERDINE, HENRY...	Estate Offices, Lancashire and Yorkshire Railway, Hunt's Bank, Manchester.
1886, May 3	SHERRIN, JOHN LESTER	40, Old Broad Street, E.C.
A. 1882, Jan. 16 F. 1887, Dec. 5	SHERWIN, JOSEPH HENRY	7, Whitehall Place, S.W.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2117	1891, May 23	SHILCOCK, JAMES	Hitchin, Herts, & 15, Basinghall St.,
2385	1891, Nov. 4	SHONE, ISAAC, A.M.I.C.E.	47, Victoria Street, Westminster, S.W.
474	A. 1877, Jan. 29 F. 1880, Nov. 8	SHOPPEE, CHAS. HERBERT, F.R.I.B.A.	22, John Street, Bedford Row, W.C.
2988	A. 1895, Oct. 24 F. 1900, June 27	*SHUFFLEBOTHAM, JOHN HENRY ...	Staplegrove, Taunton, Somerset.
604	A. 1881, Jan. 24 F. 1883, May 21	*SILCOCK, THOMAS BALL, B.S.C. *(Lond.)*	Octagon Chambers, Milsom Street, Ba
720	1882, Jan. 30	SIMMONDS, FREDERICK	Parkside, Englefield Green, Surrey.
1654	1889, Dec. 9	SIMMONS, CHARLES	Henley-on-Thames.
811	A. 1882, May 8 F. 1889, Nov. 11	SIMMONS, CHARLES FRANKLIN ...	Basingstoke, Hants, & Henley-on-Tham
824	A. 1882, Nov. 13 F. 1891, Aug. 4	SIMMONS, WILLIAM ANKER ...	Henley-on-Thames and Basingstoke.
903	1883, Feb. 26	SIMMS, WALTER	27, Albany Street, N.W.
3484	1899, Feb. 16	SIMPSON, GEORGE	Town Hall, Leith, Edinburgh.
1486	1888, May 14	SIMPSON, ROBERT THOMAS ...	Horsecroft, Bury St. Edmunds, Suffol
2386	1891, Nov. 4	SINGLE, ARTHUR	83, The Grove, Stratford, E.
2456	A. 1892, Nov. 28 F. 1897, May 31	*SKIPPER, HENRY HERBERT ...	Admiralty (Director of Works Depe ment), 21, Northumberland Aven W.C.
2387	1891, Nov. 4	SKITT, ARTHUR	Glenbrook, Trent Rd., Brixton Hill, S
3052	A. 1896, June 2 F. 1891, Oct. 3	*SKRIMSHIRE, SAMUEL	100, Jermyn Street, St. James's, S.W.
2388	1891, Nov. 4	SLADE, JAMES BENJAMIN	67 and 68, Cheapside, E.C.
1903	A. 1890, Nov. 22 F. 1892, Nov. 14	*SLATER, CHARLES FREDERICK ...	51, Cheapside, E.C.
2638	A. 1894, Feb. 23 F. 1900, Feb. 12	*SLY, JOSEPH TOWNSON	40, Chancery Lane, W.C.
3181	1897, Oct. 26	SMELLIE, GEORGE	167, St. Vincent Street, Glasgow.
135	1868, Oct. 26	SMELLIE, THOMAS DAVIES	209, St. Vincent Street, Glasgow.
1626	1889, May 13	SMITH, EDWARD	54, Amwell Street, E.C.
1484	1888, Apr. 30	SMITH, FRANK	37, Cannon Street, Birmingham.
2389	1891, Nov. 4	SMITH, FRANK ADAMS, A.M.I.C.E.	35, New Broad Street, E.C.
2606	A. 1893, Oct. 4 F. 1895, July 8	*SMITH, FRANK BRAYBROOKE ...	South Eastern Agricultural Colle Wye, Kent.
1538	A. 1888, Dec. 10 F. 1890, Jan. 27	*SMITH, FRANK WILLIAM	Beauchamp Hill, Milverton, Leamingt
2033	1891, Mar. 14	SMITH, FREDERIC ELLISON	Tanfield Chambers, Bradford.
2390	1891, Nov. 4	SMITH, FREDERICK JOHN	21, Portland Street, Southampton.
2034	1891, Mar. 14	SMITH, FREDERICK ROBERT ...	6, Great College Street, S.W.
1655	1889, Dec. 9	SMITH, GEORGE	Boughton-Monchelsea, Kent.
2119	1891, May 23	SMITH, GEORGE ALFRED	78, Parchment Street, Winchester.
2871	1895, Sept. 2	SMITH, GEORGE YOUNG	Rochlow, Omagh, Co. Tyrone.
1864	1890, Nov. 22	SMITH, HARRY RUSSELL	Exchange Buildings, Bradford.
400	A. 1875, Apr. 26 F. 1881, Jan. 24	SMITH, HENRY HERBERT	Chippenham, Wilts, & 7, Whitehall Pla S.W.
2391	1891, Nov. 4	SMITH, JOHN MOORE	14, Union Court, Old Broad Street, E

Date of Election and of Transfer.	FELLOWS.	Addrsss.
1888, May 14	SMITH, JOHN THOMPSON	Tattondale, Knutsford, Cheshire.
1891, May 23	SMITH, PERCY PYNE CALDECOTT	63, Holland Road, Kensington, W.
1890, May 29	SMITH, SIDNEY	Southwater, Horsham, Sussex.
1895, Sept. 2	SMITH, SIDNEY EDWARD, B.A. (*Dublin*)	Derryvale, Roscrea.
1891, Nov. 4	SMITH, SIDNEY ROBERT JAMES, F.R.I.B.A.	14, York Buildings, Adelphi, W.C.
A. 1883, Feb. 12 F. 1889, Feb. 25	SMITH, WHEATER	15, Cheapside, Bradford.
1885, Feb. 23	*SMITH, WILLIAM...	Upper Farm, Abbot's Salford, Evesham, Worcestershire.
A. 1868, Nov. 9 F. 1899, Oct. 30	SMYTH, EDWARD...	9, Whitehall Place, S.W.
1887, Feb. 21	SMYTH-RICHARDS, GEORGE COBLEY	6, Castle Street, Barnstaple, Devon.
1888, Nov. 12	SNELLING, HENRY...	19 & 20, Walbrook, E.C., & Sidcup, Kent.
A. 1893, Oct. 4 F. 1896, Nov. 9	*SOWELS, WILLIAM CLOWES... ...	Blackmore Heath Farm, Ockham, Ripley, Surrey.
1890, May 29	SPACKMAN, CHARLES CHANTREY	6, Terrace Walk, Bath.
1868, July 27	SPACKMAN, HENRY	6, Terrace Walk, Bath.
1897, Oct. 26	SPROAT, ROBERT	Lennox Plunton, Kircudbright.
1868, June 15	SQUAREY, ELIAS PITTS ... ... (*Past-President*)	The Moot, Downton, Salisbury, and 15, Great George Street, S.W.
1890, May 29	SQUAREY, NEWELL WILLIAM PITTS	Bemerton, Salisbury, and 15, Great George Street, S.W.
1884, Jan. 28	SQUIRE, RICHARD...	2, Pont Street, Belgrave Square, S.W.
1885, Dec. 7	STACEY, HARRIE	Station Road, Redhill, Surrey.
1891, Nov. 4	STALLARD, ALFRED EDWIN ...	West Street, Havant.
1891, Nov. 4	STALLARD, WILLIAM	Sunny Lodge, Malvern Link, and Estate Office, Madresfield, Malvern Link.
A. 1895, Oct. 24 F. 1899, Mar. 20	*STANDEN, ARTHUR CARNEGIE ...	29, Fleet Street, E.C.
1891, Nov. 4	STANFORD, CHARLES MAURICE...	23, High Street, Colchester.
1891, Mar. 14	STANGER, SAMUEL ARTHUR ...	21, Finsbury Pavement, E.C.
1891, May 23	STANHAM, GEORGE GORDON ...	100B, Queen Victoria Street, E.C.
1888, Jan. 9	STANLEY-DODGSON, STANLEY DICKINSON	Estate Office, Somerset House, Whitehaven, Cumberland.
A. 1893, Oct. 4 F. 1894, Oct. 10	*STAPLEDON, ERNEST ALLEN ...	Bridge Chambers, Bideford, North Devon.
1890, Jan. 27	START, JOSEPH WILLIAM	Cups Chambers, High Street, Colchester, Essex.
1891, Nov. 4	STEDMAN, CHARLES MASON ...	3, Epirus Mansions, Walham Green, S.W.
1877, Jan. 15	STENNING, ALEXANDER ROSE, F.R.I.B.A. ... ... (*Member of Council*)	121, Cannon Street, E.C.
A. 1879, Jan. 6 F. 1882, Nov. 13	STEPHENSON, CHARLES WILLIAM	38, Parliament Street, S.W.
1890, May 29	STEVENS, CHARLES VIVIAN ...	18, Cockspur Street, S.W.
1891, Nov. 4	STEVENS, JOHN WM., A.R.I.B.A.	21, Bridge Street, E.C.
1884, May 26	STEVENS, WILLIAM CHARLES ...	22, Savile Row, W.
1897, Oct. 26	STEVENSON, ALLAN	14, Cathcart Street, Ayr, N.B.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2037	1891, Mar. 14	STEVENSON, EDMD. HERBERT, M.I.C.E.	38, Parliament Street, S.W.
97	1868, July 27	STEWARD, HERBERT THOMAS ... (*Member of Council*)	45, Parliament Street, S.W.
2873	1895, Sept. 2	STEWART, EDWARD P., CAPT. ...	21, Westland Row, Dublin.
2874	1895, Sept. 2	STEWART, GEORGE FRANCIS ...	Summerhill, Killiney, Co. Dublin.
3336	1898, Oct 29	*STEWART, SAMUEL PARR	Arbury, Nuneaton, Warwickshire.
2875	1895, Sept. 2	STEWART, WILLIAM THOMAS ...	6, Leinster Street, Dublin.
2038	1891, Mar. 14	STIRTON, THOMAS...	Estate Office, Bawdsey, Woodbri Suffolk.
938	1883, Apr. 30	STOCK, HENRY, F.R.I.B.A.	9, Denman Street, London Bridge, S.
2121	1891, May 23	STOCKS, FREDERICK WILLIAM ...	Telephone Exchange Buildings, Ba Quay, Northwich.
3014	1896, Jan. 21	STOKES, FRANK	60, Dawson Street, Dublin.
2876	1895, Sept. 2	STOKES, RICHARD...	15, Alma Road, Monkstown, Co. Dul
654	1881, Dec. 19	STONER, ALFRED	Boston House, 63 & 64, New Broad St.,
1599	1889, Mar. 4	STOOKE, JAMES	Courtenay Street, Newton Abbot, De
3035	1896, June 2	STOPFORD, THE HON. GEORGE FREDERICK WILLIAM	The Estate Office, Gorey, Co. Wexfo
2399	1891, Nov. 4	STOPHER, THOMAS	Winchester, Hants.
2039	1891, Mar. 14	STREET, WM. CHAS., F.R.I.B.A.	18, Walbrook, E.C.
2993	A. 1895, Oct. 24 F. 1898, June 27	*STROUTS, LEWIS HERBERT... ...	Belgrave Place, St. Mary Cray, Ken
1108	1884, Feb. 25	STRUDWICK, HAYWARD JAMES...	Falcon Court, 32, Fleet Street, E.C.
655	1881, Dec. 19	STRUDWICK, WILLIAM HENRY ...	New Inn Chambers, W.C.
415	A. 1875, Dec. 13 F. 1891, June 29	STRUTT, HON. EDWARD GERALD (*Member of Council*)	21, Finsbury Circus, E.C., & Whitela Hatfield Peverel, Chelmsford, Esso
2877	1895, Sept. 2	STUDDERT, R. R.	Hazlewood, Quin, Co. Clare.
1488	1888, May 14	STUDDY, THOMAS EDWARD ...	Estate Office, Basing Park, Alton, Ha
87	1868, July, 20	STURGE, ROBERT FOWLER	33, Corn Street, Bristol.
18	1868, June 15	STURGE, WILLIAM... ... ... (*Past-President*)	33, Corn Street, Bristol.
2400	1891, Nov. 4	SURRIDGE, JOSEPH SMITH	Coggeshall, Essex.
2401	1891, Nov. 4	SUTHERS, JAMES	Harley Villas, Todmorden.
2402	1891, Nov. 4	SWAIN, ERNEST	26, High Street, Notting Hill Gate,
2403	1891, Nov. 4	SWAIN, FRANK	170, High Street, Notting Hill Gate,
1427	A. 1887, Dec. 19 F. 1892, Feb. 1	SWETENHAM, HENRY	Hawarden, Chester.
2878	1895, Sept. 2	SWINEY, WILLIAM D.	Moyagh, Ramelton, Co. Donegal.
1257	1885, Feb. 23	SWORDER, HUGH	High Street, Epping, Essex.
2879	1895, Sept. 2	SYNGE, EDWARD	Rathe, Kingscourt, Co. Cavan.
1956	1891, Jan. 17	SYNGE, EDWARD MILLINGTON ...	Eastlands, Weybridge.
1824	1890, May 29	TABBERER, BENJ., F.R.I.B.A. ...	13, Basinghall Street, E.C.
2880	1895, Sept. 2	TAILYOUR, ALEXANDER	Estate Office, Arklow, Co. Wicklow.
2881	1895, Sept. 2	TALBOT-CROSBIE, WM. DAVID ...	Cloonea, Mount Talbot, Roscommon

Date of Election and of Transfer.	FELLOWS.	Address.
A. 1894, Oct. 30 F. 1897, Jan. 25	*TALLENT, EDWIN JAMES	West Acre, Swaffham, Norfolk.
1898, Feb. 18	TANNAHILL, ROBERT DUNLOP ...	Lands Valuation Office, Kilmarnock.
1886, May 3	TANNER, HENRY, F.R.I.B.A. ...	H.M. Office of Works, Storey's Gate, Westminster, S.W.
1884, Feb. 11	TANNER, JAMES MELHUISH ...	Wembworthy, North Devon.
1895, Sept. 2	TANNER, KEARNS DEANE, MAJOR	14, Upper Merrion Street, Dublin.
A. 1884, Feb. 25 F. 1888 Dec. 10	TANNER, WILLIAM	The Leys, Bryngwn Road, Newport Monmouthshire.
A. 1882, Feb. 27 F. 1889, Nov. 11	TAPP, ARTHUR	1, Prince's Street, Westminster, S.W., and Southend-on-Sea, Essex.
1891, Nov.	TASKER, HENRY HUGH	43, Penton Street, Pentonville, N.
1895, Sept. 2	TATLOW, JOHN GARNET	14, South Frederick Street, Dublin.
1895, Sept. 2	TATLOW, TISSINGTON WILLIAM GARNETT	14, South Frederick Street, Dublin.
1891, Nov. 4	TAYLOR, ARTHUR WILLIAM ...	159, High Street, Putney, S.W.
1896, Oct. 28	TAYLOR, EDGAR CHARLES	Royal Engineer Office, Singapore, Straits Settlements.
1887, Jan. 24	TAYLOR, EDWARD FERGUSSON ...	New Barnet, Herts, and 70 & 72, Chancery Lane, W.C.
A. 1892, Nov. 28 F. 1895, Nov. 1	*TAYLOR, HARRY WILLIAM	St. Nicholas Chambers, Amen Corner, Newcastle-on-Tyne.
1895, Sept. 2	TAYLOR, J. GODFREY L.	Grangeville, Fethard, Co. Waterford.
A. 1888, Mar. 5 F. 1891, July 6	TAYLOR, JOHN HERBERT	12, Hanover Square, W.
A. 1881, Dec. 19 F. 1887, Feb. 7	TAYLOR, JOHN WALTON, F.R.I.B.A.	31, Westgate Road, Newcastle-on-Tyne.
A. 1883, Dec. 17 F. 1889, Nov. 11	TAYLOR, MATTHEW	Northchapel, Petworth, Sussex.
1890, May 29	TAYLOR, RICHARD FREDERICK ...	3, King Street, Cheapside, E.C.
1897, Oct. 26	TAYLOR, ROBERT	70, Bath Street, Glasgow.
1891, Nov. 4	TAYLOR, SAMUEL	Nuttal, Nottingham.
1891, Nov. 4	TAYLOR, THOMAS WALTERS ...	25, Brazennose Street, Manchester.
1899, Oct. 30	*TAYLOR THOS. WILLIAM HARRIS	Estates Office, Killerton, Exeter, Devon.
A. 1894, Feb. 23 F. 1894, Oct. 10	*TEE, SAMUEL CLIFFORD	50, Moorgate Street, E.C.
A. 1891, Nov. 4 F. 1894, Oct. 10	*TEMPLE, FREDERICK WILSON ...	48, Sandgate Road, Folkestone, Kent.
1895, Sept. 2	TENER, EDWARD SHAW	The Square, Loughrea, Co. Galway.
1884, Jan. 28	TEWSON, EDWARD	80, Cheapside, E.C.
A. 1882, Dec. 18 F. 1885, Jan. 12	TEWSON EDWARD ARTHUR	80, Cheapside, E.C.
A. 1893. Oct. 4 F. 1898, Oct. 3	*THEAKSTON, WILLIAM PEASE ...	Huntingdon.
A. 1832, Apr. 24 F. 1890, Nov. 10	THEOBALD, HENRY	6, South St., Finsbury Pavement, E.C., and 19, Cranboork Gardens., Cranbrook Road, Ilford, Essex.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
924	1883, Apr. 16	THEOBALD, HENRY WELLS, DEWHURST	110, Great Russell Street, W.C.
3053	A. 1896, June 2 F. 1898, June 6	*THEOBALD, JOHN MEDOWS	110, Great Russell Street, W.C.
2408	1891, Nov. 4	THOMAS, GEORGE	Queen's Chambers, Cardiff.
1765	1890, Mar. 10	THOMAS, GLEGGE	Cheshire Lines Committee, Centr Station, Liverpool.
2409	1891, Nov. 4	THOMAS JOHN HENRY	78, Gloucester Rd., S. Kensington,
841	1882, Dec. 18	THOMPSON ARTHUR EDMUND ...	Leadenhall Buildings, E.C.
2411	1891, Nov. 4	THOMPSON, FRANCIS WILLIAM ...	18, Wood Street Bolton.
2412	1891, Nov. 4	THOMPSON, GEO. WILLIAM A.M.I.C.E.	Vine St., Tooley St., Southwark, S.E
1473	1888, Mar. 19	THORNE, ARNOLD, F.R.I.B.A. ...	Cross Street, Barnstable, Devon.
757	A. 1882, Feb. 12 F. 1889, Nov. 25	THORPE, CHRISTOPHER	Spring House, Calow, Chesterfield.
2122	1891, May 23	THORPE, JOHN	Nailstone, Nuneaton, Leicestershire
2722	A. 1894, Oct. 30 F. 1895, July 8	*THRING, DOUGLAS THEODORE ...	Granville Estate Office, Bude, N Cornwall.
623	1889, Apr. 29	THURGOOD, WILLIAM HENRY ...	110, St. Martin's Lane, W.C.
591	A. 1880, Dec. 13 F. 1887, Nov. 14	THURNALL, JOHN EDWARD	Royston, Herts.
494	1878, Jan. 14	THURSFIELD, THOMAS HOWELLS	The Grange, Much Wenlock, Shrops
45	1868, June 15	THYNNE, EDWARD LEWIS	9, Victoria Street, S.W.
1070	1884, Jan. 28	THYNNE, GUY HARRY	9, Victoria Street, S.W.
1865	1890, Nov. 22	TIDMAN, EDWARD	Connaught Mansions, 34, Vic Street, S.W.
1297	A. 1886, Jan. 11 F. 1889, Mar. 18	*TIFFEN, JOHN HENRY	26, Dover Street, Hull.
1373	1887, Feb. 21	TINDALL, CHARLES WILLIAM ...	Wainfleet, R.S.O., Lincolnshire.
2886	1895, Sept. 2	TISDALL, HY. CHICHESTER	21, Lincoln Place, Dublin.
2413	1891, Nov. 4	TODD, RICHARD	Engelfield, near Reading.
1241	1885, Jan. 12	TODD, WILLIAM HENRY, M.I.C.E.	County Buildings, Hull.
1438	1888, Jan. 9	TOMLINSON, THOMAS	2, St. James's Street, Derby.
1600	1889, Mar. 4	THOMPSETT, WILLIAM ROBERT ...	Medhurst, Tonbridge, and Stone C Farm, Paddock Wood, Kent.
1827	1890, May 29	TOMSON, JAMES JOHN	The Châlet, King's Norton, near mingham.
66	1882, Feb. 27	TOOTELL, CHARLES	13, King Street, Maidstone, Kent.
767	1882, Feb. 27	TOOTELL, JOSEPH	13, King Street, Maidstone, Kent.
473	1877, Jan. 29	TOOTELL, RICHARD WILLIAM ...	11, Queen Victoria Street, E.C.
2550	A. 1892, Nov. 28 F. 1896, Feb. 3	*TORY, JOHN EDWARD	Dorchester, Dorset, & Yeovil, Som
447	1876, Apr. 24	TOWER, BROWNLOW RICHARD CHRISTOPHER	Bridgewater Estate Office, Elles Salop.
2736	A. 1895, Mar. 6 F. 1898, Oct. 3	*TOWNEND, WILLIAM	Park Farm, Scacroft, near Leeds.
2887	1895, Sept. 2	TOWNSEND, CHARLES, EYRE COOTE	16, Dawson Street, Dublin.

Date of Election and of Transfer.	FELLOWS.	Address.
1895, Sept. 2	TOWNSEND, ROBERT UNIACKE FITZGERALD	18, South Mall, Cork.
1895, Sept. 2	TOWNSHEND, CHARLES LOFTUS ...	15, Molesworth Street, Dublin.
1895, Sept. 2	TOWNSHEND, JAMES RICHARD CLARKE	23, South Frederick Street, Dublin.
1895, Sept. 2	TOWNSHEND, LOFTUS THOMAS ...	15, Molesworth Street, Dublin.
1895, Sept. 2	TOWNSHEND, THOMAS COURTNEY	23, South Frederick Street, Dublin.
1891, Nov. 4	TRAFFORD, FREDERICK CHARLES	100, Jermyn Street, St. James's, S.W.
A. 1883, May 25 F. 1886, Nov. 8	*TREADWELL, HENRY JOHN	2, Waterloo Place, Pall Mall, S.W.
1895, Sept. 2	TRENCH, ARTHUR	Dromkeen, Cavan.
1895, Sept. 2	TRENCH, GEO., FREDERIC, B.A. (*Dublin*)	Estate Office, Ardfert, Co. Kerry.
1895, Sept. 2	TRENCH, JAMES CURRIE	Coolgraney, Dundrum, Co. Dublin.
1895, Sept. 2	TRENCH, PHILIP FRANCIS CHENEVIX	30, Kildare Street, Dublin.
1891, Nov. 4	TREPPLIN, ERNEST C.	Stoke Court, Taunton, Somersetshire.
1883, Dec. 17	TRETHEWY, HENRY	Silsoe, Ampthill, Beds.
1886, Jan. 11	TRIST, JOHN WILLIAM	3, Great St. Helen's, E.C.
1874, May 11	TROLLOPE, CHARLES BROWN ...	Broad Sanctuary Chambers, Tothill Street, Westminster, S.W.
A. 1880, Dec. 13 F. 1891, Jan. 19	TROLLOPE, HENRY CHARLES ...	7, Hobart Place, S.W.
A. 1884, Mar. 10 F. 1891, Aug. 4	TRUMPER, JOHN ALFRED	23, Lincoln's Inn Fields, W.C.
1891, Mar. 14	TUBBS, WALTER BURNELL	17 and 18, Basinghall Street, E.C.
A. 1891, Nov. 4 F. 1896, Jan. 6	*TUCKETT, PERCIVAL FOX	2, Basinghall Street, E.C.
1891, Nov. 4	TURNER, ALEXANDER HENRY ...	199, Piccadilly, W.
1888, Nov. 12	TURNER, CHARLES	Oakhurst, East Grinstead, Sussex.
1895, Sept. 2	TURNER, FREDERICK ADOLPHUS BRABAZON	The Estate Office, Gorey.
1883, Feb. 26	TURNER, FREDERICK JOHN	Mansfield-Woodhouse, Mansfield, Notts.
1890, Nov. 22	TURNER, JOSEPH HARLING	Portland Estate Offices, Kilmarnock.
1891, May 23	TURNER, THOMAS NEVE	37, Upper Berkeley St., Portman Sq., W.
1888, Dec. 10	TURNER, THOMAS WARNER ...	Welbeck Abbey, Worksop, Notts.
1885, Jan. 26	TURNOR, EXSUPERIUS WESTON ...	The Green, Stafford.
1890, Nov. 22	TURTON, EDWARD JAMES	Horkstow, Barton-on-Humber, Lincolnshire.
1898, Oct. 29	*TUTT, EDWIN THOMAS	Market Place, Ampthill, Beds.
A. 1890, Jan. 6 F. 1893, Aug. 9	*TYLER, JAMES WILLIAM	45, Holborn Viaduct, E.C.
1895, Sept. 2	TYNDALL, ALBERT HENRY	Ballyanne House, New Ross, Co. Wexford.
1895, Sept. 2	TYRRELL, GARRETT CHARLES, M.A. (*Dublin*)	Ballinderry, Carbery, Co. Kildare.
1883, Feb. 26	VAIZEY, JOHN GEORGE...	Bocking, Baintree, Essex, & 44, Bedford Row, W.C.
1891, May 23	VALLANCE, ROBT. F., F.R.I.B.A.	Mansfield, Notts.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2903	1895, Sept. 2	VANDELEUR, CECIL ERNEST ...	Estate Office, Mallow, Co. Cork.
2904	1895, Sept. 2	VEREKER, HENRY ROBERT... ...	Summerville, Westport, Co. Mayo.
429	1876, Feb. 21	*VERNON, ARTHUR ... ... (*Vice-President*)	Borshams, High Wycombe, Bucks, 29, Cockspur Street, S.W.
2905	1895, Sept. 2	VERNON, ARTHUR POMEROY ...	1, Wilton Place, Dublin.
2906	1895, Sept. 2	VERNON, FANE	Pembroke Estate Office, Wilton Pl Dublin.
2289	1891, Nov. 4	†VERNON-INKPEN, GEORGE CHAS.	75, King's Road, Southsea, Hants.
2907	1895, Sept. 2	VERSCHOYLE, WILLIAM HENRY FOSTER...	Woodley, Dundrum.
418	1876, Jan. 10	VIGERS, ASTLEY	4, Frederick's Place, E.C.
498	A. 1878, Jan. 28 F. 1883, Oct. 11	VIGERS, LESLIE ROBERT ... ... (*Member of Council*)	4, Frederick's Place, E.C.
594	A. 1880, Dec. 13 F. 1885, Nov. 9	VIGERS, MARTIN	52, Queen Victoria Street, E.C.
46	1868, June 15	VIGERS, ROBERT ... ... (*Past-President*)	4, Frederick's Place, E.C.
1496	1888, Nov. 12	VILLAR, JAMES	1A, Cambray, Cheltenham.
2994	A. 1895, Oct. 24 F. 1898, Dec. 12	*VINTEN, HAROLD BERTRAM ...	72, High Street, Ramsgate, Kent.
1601	1889, Mar. 4	WACHER, THOMAS...	Upper Bridge Street, Canterbury, K
2126	1891 May 23	WADE, GEORGE TEMPEST	Halford Street, Leicester.
2418	1891, Nov. 4	WADLING, HY. JOHN, F.R.I.B.A.	Lamb Building, Temple, E.C.
2419	1891, Nov. 4	WADMORE, BEAUCHAMP, A.R.I.B.A.	8, Bream's Buildings, Chancery Lane
1618	1889, Apr. 1	WAGSTAFFE, THOMAS ROGERS ...	11, Devonshire Road, Balham, S.W. 109, Leadenhall Street, E.C.
843	1882, Dec. 18	WAINWRIGHT CHARLES RAWLINSON	Shepton Mallet, Somerset.
1631	1889, Nov. 25	WAINWRIGHT, THOMAS TAYLOR (*Member of Council*)	13, Union Court, Castle St., Liverpo
1392	1887, May 9	WALCOTT, LYONS RODEN SYMPSON	Garvery, Bush Hill Park, Enfield and 1, Gray's Inn Place, W.C.
1869	1890, Nov. 22	WALKER, FRANCIS ELLIOTT... ...	Blake Street, York.
2421	1891, Nov. 4	WALKER, GEORGE BOOTH	Wainfleet, Lincolnshire.
3485	1899, Feb. 16	WALKER, GEORGE JAMES	3, Golden Square, Aberdeen.
743	1882, Feb. 13	WALKER, HERBERT, A.M.I.C.E., F.R.I.B.A.	Newcastle Chambers, Angel Nottingham.
3486	1899, Feb. 16	WALKER, JOHN	74, Bath Street, Glasgow.
2127	1891, May 2	WALKER, JOSEPH	Lenton Avenue, The Park, Nottingh
1773	1890, Mar. 24	WALKER, JOSHUA	Market Place, Retford, Notts.
659	1881, Dec. 19	WALKER, SAMUEL	22, Moorgate Street, E.C.
1072	1884, Jan. 28	WALL, GEORGE YOUNG	Exchequer Buildings, Durham.

† Special Sanitary Science Certificate.

Date of Election and of Transfer.	FELLOWS.	Address.
1891, Nov. 4	WALLACE, GEORGE	St. Giles' District Board of Works, 197, High Holborn, W.C.
1884, May 19	WALLACE, HENRY...	Trench Hall, Gateshead-on-Tyne, Co. Durham.
1899, Feb. 16	WALLACE, THOMAS DOUGLAS ...	Callendar Park, Falkirk, Stirlingshire.
1898, Oct. 29	WALLACE, WILLIAM SYDNEY SMITH	"Bardeunock," Moniaive, Dumfriesshire
1888, Feb. 6	WALLINGTON, JOHN ARTHUR BEACH	Basingstoke, Hants.
A. 1883, Dec. 17 F. 1897, May 31	*WALLIS, JOHN DAVID	20, Booth Street, Manchester.
1882, Mar. 27	WALMISLEY, ARTHUR THOMAS, M.I.C.E.	9, Victoria Street, S.W., and Harbour Board Offices, Dover, Kent.
1891, Mar. 14	WALMISLEY, JOSEPH WILLIAM, F.R.I.B.A.	7, King's Terrace, Southsea, Hants.
1898, Feb. 18	WALMSLEY, ARTHUR TINDAL ...	Royal Engineer Office, Buncrana, near Londonderry.
1890, May 29	WANKLYN, PHILLIP ENDELL ...	Dixton, near Monmouth.
1887, Dec. 19	WARD, DANIEL	8, Courtenay Street, Plymouth, and Hewton, Beeralston, Devon.
1890, Feb. 10	WARD, FELIX JOHN	The Gardens, Lydbury North, Shropshire.
1888, Mar. 5	WARD, FRANK	Burnville, Tavistock, North Devon.
A. 1883, Dec. 17 F. 1889, Nov. 11	WARD, GEORGE	"Lyndhurst," 2, Stowe Road, Goldhawk Road, W.
1895, Sept. 2	WARD, HON. SOMERSET	Isle o'Valla House, Downpatrick.
1881, Dec. 19	WARE, CHAS. EDWIN, M.I.C.E. ...	Gandy Street Chambers, Exeter.
1884, Apr. 21	WARING, CHARLES EDWARD ...	1, Charles St. Cockherbtown, Cardiff.
1890, Nov. 22	WARING, HERBERT FULLER ...	46, Earl Street, Maidstone, Kent,
1891, Nov. 4	WARNER, ALFRED ERNEST, A.R.I.B.A.	22, John Street, Bedford Row, W.C.
1889, Nov. 25	WARNER, HENRY	Faringdon, Alton, Hants.
A. 1869, Mar. 8 F. 1875, Apr. 12	WARNER, WILLIAM HENRY... ...	130, Mount Street, Grosvenor Square, W.
1895, Sept. 2	WARNOCK, THOMAS ARCHIBALD	Portaferry, Co. Down.
1895, Sept. 2	WARREN, RICHARD LANE	61, South Mall, Cork.
1891, Nov. 4	WATERMAN, ALBERT JAMES ...	20, Week Street, Maidstone.
1883, Jan. 29	WATERMAN, JAMES	Tenterden, and Ashford, Kent.
1891, Mar. 14	WATERS, EDWARD	The Canal, Salisbury, Wilts.
A. 1882, Feb. 13 F. 1887, Mar. 7	WATERS, WILLIAM RICHARD ...	78, South Audley Street, W.
A. 1884, Feb. 11 F. 1889, Mar. 4	WATKINS, ROBERT ARUNDEL ...	Castle Combe, Chippenham, Wilts.
1868, June 15	WATNEY, DANIEL ... ... (*Past President*)	33, Poultry, E.C.
1891, Jan. 17	WATNEY, DENDY	4A, Frederick's Place, E.C.
A. 1883, May 21 F. 1887, Feb. 21	WATNEY, WALTER DANIEL	9, Whitehall Place, S.W.
1889, Dec. 9	WATSON, ALFRED	Ripley, Norwich Avenue, Bournemouth, [Hants.
1895, Sept. 2	WATSON, ARTHUR B., LL.B., M.A. (*Dublin*)	2, Seapoint Terrace, Monkstown, Co. Dublin.
1880, Mar. 1	WATSON, HERBERT EDWARD ...	New Grove, Petworth, Sussex, and 6, Lendal, York.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2996	A. 1895, Oct. 24 F. 1899, Nov. 13	*WATSON, HERBERT JOHN	Petworth, Sussex.
1236	A. 1884, Dec. 8 F. 1895, Sept. 23	*WATSON, JAMES BRUCE	Estate Office, Shirburn, Wallingford.
2425	1891, Nov. 4	WATSON, JOHN	Cogan Chambers, Bowlalley Lane, H
1290	A. 1885, Dec. 7 F. 1894, May 28	*WATSON, JOHN, JUN.	Wentbridge Lodge, Pontefract, York
2913	1895, Sept. 2	WATSON, WILLIAM JAMES	Benvenue, Rostrevor,. Co. Down.
1456	1888, Feb. 6	WATT, ALEXANDER	Ravenglass, Carnforth, Lancashire.
467	A. 1876, Dec. 18 F. 1879, Nov. 10	WATTS, CHARLES	13, Southampton Street, Strand, W.C
2426	1891, Nov. 4	WATTS, SAMUEL LINGARD	40, South King St., Cross St., Manches
1658	1889, Dec. 9	WAY, HENRY JAMES	109, Lower St. James' Street, Newp Isle of Wight.
284	1872, May 6	WEALL, JOHN	38, High Street, Watford.
1045	1884, Jan. 14	WEATHERALL, HENRY	22, Chancery Lane, W.C.
700	1882, Jan. 16	WEAVER, WILLIAM, M.I.C.E. ...	Town Hall, Kensington, W.
2915	1895, Sept. 2	WEBB, CHARLES	Rahilly, Sligo.
1725	1890, Feb. 10	WEBB, WILLIAM	Inglenook, Purley, Surrey.
1478	1888, Apr. 16	WEBSTER, ALEXANDER...	100, Highgate, and 9, Cliff Terr Kendal, Westmoreland.
1908	A. 1890, Nov. 22 F. 1897, Feb. 8	*WEBSTER, HUGH CALTHROP ...	2, Basinghall Street, E.C.
1659	1889, Dec. 9	WELCH, FREDERICK WILLIAM ...	170, North Street, Brighton, and Western Road, Hove, Sussex.
2128	1891, May 23	WELLS, EDWIN	Barnard Castle, Co. Durham.
2553	A. 1892, Nov. 28 F. 1896, Oct. 1	*WELLS, WILLIAM HENRY	22, Lower Phillimore Place, W.
1169	A. 1884, May 5 F. 1890, Dec. 8	WELLS, WILLIAM HOWLEY	Estate Office, Evershot, Dorset.
661	1881, Dec. 19	WELLSTED, WM. HENRY, A.M.I.C.E.	Prince's Dock Chambers, Hull.
2914	1895, Sept. 2	WELPLEY, JAMES	65, George Street Limerick.
3152	1897, Feb. 17	WENBORN, SIDNEY THOMAS ...	War Office, Horse Guards, Whitehal
2615	A. 1893, Oct. 4 F. 1895, Sept. 23	*WEST, CHARLES HENRY EDWARD	5A, Orchard Street, Portman Square
744	1882, Feb. 13	WESTBURY, GEORGE HENRY ...	The Knoll, Andover, Hants.
2045	1891, Mar. 14	WETHERALL, HARRY LANCASTER	Brachlyn, Winchfield, Hants.
1454	1888, Feb. 6	WHALLEY, HENRY SHAW	3, Hunter St., Town Hall Sq., Chest
779	1882, Mar. 13	WHARTON, THOMAS GEORGE ...	7 and 8, Ironmonger Lane, E.C.
3139	A. 1896, Oct. 28 F. 1900, May 21	*WHEATLEY, STEPHEN GLADSTANE	28 & 29, Chancery Lane, W.C.
2551	A. 1892, Nov. 28 F. 1897, June 28	*WHEELER, JOHN HENRY WEST ...	189, Fulham Road, South Kensingt
2616	A. 1893, Oct. 4 F. 1897, Oct. 4	*WHITAKER, ERNEST VICTOR ...	2, Queen Street, Exeter, Devon.
2427	1891, Nov. 4	WHITE, ALFRED EDWARD, A.M.I.C.E.	Town Hall, Hull.
3015	1896, Jan. 21	WHITE, ARTHUR	99, George Street, Limerick.
1968	1891, Jan. 17	WHITE, ARTHUR JEFFERY	Wrangaton, South Brent, South Dc
1959	1891, Jan. 17	WHITE, CHARLES ALEXANDER ...	18, High Street, Dorking, Surrey.
2128	1891, Nov. 4	WHITE, JAMES ALEXANDER... ...	18, High Street, Dorking.

p. o.	Date of Election and of Transfer.	FELLOWS.	Address.
45	1882, Feb. 13	WHITE, JOHN	Warrington, Lancashire.
16	1895, Sept. 2	WHITE, RICHARD	Johnstown House, Enfield, Co. Meath.
29	1891, Nov. 4	WHITE, WILLIAM HENRY	Eldon Buildings, 15, 16, & 17, Eldon St.,
01	1882, Jan. 16	WHITELEY, CHARLES PERRY ...	82, Queen Street, E.C. [E.C.
23	A. 1894, Oct. 30 F. 1896, May 11	*WHITTAKER, JOHN DRONSFIELD, B.A. (*Cantab.*)	Oxford and Cambridge Club, Pall Mall.
03	1898, Feb. 18	WHYTE, JOHN...	City Chambers, Glasgow.
90	1890, Apr. 14	WIGLEY, GEORGE DAVYS EDWARD	Winslow, Bucks.
34	A. 1870, Feb. 7 F. 1876, Nov. 13	WIGRAM, JOHN	South Collingham, Newark, Notts.
43	A. 1898, Oct. 29 F. 1899, Oct. 2	*WIGRAM, REGINALD SPENCER ...	1, Burbage Terrace, Wimborne, Dorset.
02	1892, Feb. 26	WILBRAHAM, EDWARD SIDNEY ...	Estate Office, St. Giles, Salisbury.
46	1891, Mar. 14	WILDE, WILLIAM	Prockett House, Sharrow, Sheffield.
33	1891, Nov. 4	WILKIN, HORACE MARTIN	King's Lynn, Norfolk.
34	1891, Nov. 4	WILKINS, WILLIAM	Pencastell, Llanelly, Carmarthenshire.
21	1882, Jan. 30	WILKINSON, GEORGE AYSCOUGH	7, Poultry, E.C.
30	1891, Jan. 17	WILKINSON, GEORGE HERBERT ...	7, Poultry, E.C.
26	1884, Dec. 8	WILKINSON, THOMAS	170, North Street, Brighton, and 30A, Western Road, Hove, Sussex.
36	1890, Mar. 10	WILLIAMS, EDWARD BICKERTON...	City Chambers, 82, New St., Birmingham.
35	1891, Nov. 4	WILLIAMS, GERALD GARNONS ...	St. John's Mount, Brecon, S. Wales.
38	A. 1895, Mar. 6 F. 1898, May 2	*WILLIAMS, HENRY CUTHBERT ...	2, Union Court, Old Broad Street, E.C.
04	1884, Feb. 11	WILLIAMS, JOHN	Gwernhefin, Bala, North Wales.
78	A. 1875, Jan. 18 F. 1890, Feb. 24	WILLIAMS, LEONARD JAMES ...	118, Queen Victoria Street, E.C.
38	A. 1880, Jan. 19 F. 1883, Apr. 16	WILLIAMS, WILLIAM HERBERT ...	Great Western Railway, Paddington, W.
7	A. 1893, Oct. 4 F. 1897, Feb. 22	*WILLIS, EDWARD	Forth Lodge, 293, Willesden Lane, Willesden Green, N.W.
7	1895, Sept. 2	WILLIS, GILBERT DE LAVAL... ...	4, Kildare Street, Dublin.
8	1895, Sept. 2	WILLIS, HENRY DE LAVAL	Ennis, Co. Clare.
13	1889, Feb. 25	WILLMOT, GEORGE DYOTT	6, Waterloo Street, Birmingham.
17	A. 1882, Apr. 24 F. 1887, May 9	WILLMOT, JOHN	6, Waterloo Street, Birmingham.
9	1895, Sept. 2	WILSON, ARTHUR JN. DE COURCY	Garvagh, Edgesworthstown.
5	A. 1898, Oct. 29 F. 1899, Oct. 2	*WILSON, FREDERICK ROBERT ...	10, St. Nicholas Rd., Upper Tooting, S.W.
4	1883, Dec. 17	WILSON, SIR JACOB	Board of Agriculture, 3 St. James's Sq., S.W., and Chillingham, Alnwick.
8	1899, Feb. 16	WILSON, JAMES	26, Renfield Street, Glasgow.
1	A. 1896, Oct. 28 F. 1899, Jan. 23	*WILSON, LAWRENCE RICHARD ...	St. Andrew's Chambers, Albert Square, Manchester.
2	1881, Dec. 19	WILSON, THOMAS SILK...	Albert Square, Manchester.
2	1891, Jan. 17	WILSON, WILLIAM HENRY	29, Fountain Street, Manchester.
6	1891, Nov. 4	WINN, THOMAS	92, Albion Street, Leeds.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
3304	1898, Feb. 18	WINNING, DOUGLAS CAMPBELL WILLS	Municipal Buildings, Broughty Fe N.B.
1963	1891, Jan. 17	WINTERTON, HARRY JOHN CAMPION	St. Mary's Chambers, Lichfield.
1964	1891, Jan. 17	WINTERTON, WILLIAM MOXON ...	Walton Warren, Burton-on-Trent.
2437	1891, Nov. 4	WISE, CHARLES DACRES	Toddington, Winchcomb, Glos.
2047	1891, Mar. 14	WITHALL, LATHAM AUGUSTUS, F.R.I.B.A.	Jewry House, Old Jewry, E.C.
2130	1891, May 23	WOLFENDEN, THOMAS	Estate Office, Scarisbrick Hall, r Ormskirk, Lancashire.
2438	1891, Nov. 4	WOLLEY, THOMAS JOHN	Clungunford Estate Office, Aston Clun, Salop.
2640	A. 1894, Feb. 23 F. 1899, Jan. 23	*WONNACOTT, ERNEST WILLIAM MALPAS, A.R.I.B.A.	74, Torbay Road, Brondesbury, N.W.
1909	A. 1890, Nov. 22 F. 1891, May 25	*WOOD, CHARLES BRUCE	26, Haldon Rd., West Hill, Wandswo
539	A. 1879, Mar. 17 F. 1891, July 6	WOOD, HENRY	97, Gresham Street, E.C.
1474	1888, Mar. 19	WOOD, JOHN DANIEL	6, Mount Street, W.
2048	1891, Mar. 14	WOOD, WILLIAM	Ivymeath, Snodland, Rochester, Ker
1873	1890, Nov. 22	WOODBRIDGE, STEPHEN, JUN., ...	210, High Street, Brentford.
1874	1890, Nov. 22	WOODFORDE, LIONEL BURNET ...	Milton Ferry, Peterborough.
845	1882, Dec. 18	WOODHAMS, JAMES	Havelock Road, Hastings.
2131	1891, May 23	WOODMAN, THOMAS FOSTER ...	32, St. Peter Street, St. Albans.
3507	1899, Oct. 30	*WOODROW, THOMAS JOHN	18, Coleman Street, E.C.
2557	A. 1892, Nov 28 F. 1895, Oct. 1	*WOODS, ARTHUR GEORGE	Hampton House, Grove Road, Houns
2132	1891, May 23	WOODS, THOMAS	4 and 5, Church Parade, Hounslow.
2439	1891, Nov. 4	WOODTHORPE, EDMUND, F.R.I.B.A., M.A. (*Oxon.*)	32, Gresham, E.C.
711	A. 1882, Jan. 16 F. 1890, Apr. 14	WOODWARD, WM., A.R.I.B.A. ...	13, Southampton Street, Strand, W.
3287	A. 1897, Oct. 26 F. 1898, Oct. 3	*WOOF, ROBERT STEPHENSON ...	Estate Office, Lowther, Pen Cumberland.
2440	1891, Nov. 4	WOOLER, WALTER HERNAMAN ...	Waterloo Street, Weston-super-Mar
2049	1891, Mar. 14	WOOLLEY, JOHN TURTON	Salisbury, Wilts.
613	1881, Feb. 21	WOOLLEY, REGINALD	Silver St., Lincoln, & South Colling Newark, Notts.
427	A. 1876, Feb. 7 F. 1880, Nov. 8	WOOLLEY, THOMAS CECIL SMITH	South Collingham, Newark, Notts.
267	A. 1871, Nov. 13 F. 1877, Jan. 29	WOOLLEY, WILLIAM EDWARD ...	The Red House Loughborough, Leic
1876	1890, Nov. 22	WORDSWORTH, ROBERT WALTER	Whitemoor, Ollerton, Notts.
680	A. 1881, Dec. 19 F. 1887, Jan. 10	WREATHALL, ROBERT T.	The Vestry Hall, St. Martin's l Trafalgar Sq., W.C., & Manor H Greenhill, Harrow.
2441	1891, Nov. 4	WRENNALL, WILLIAM	9, Harrington Street, Liverpool.
2442	1891, Nov. 4	WRIGHT, CHARLES WILLIAM, M.A. (*Cantab.*)	Wollaton, Notts.

ip. lo.	Date of Election and of Transfer.	FELLOWS.	Address.
143	1891, Nov. 4	WRIGHT, GEORGE THOMAS GREEN	3, Great Winchester Street, E.C.
144	1891, Nov. 4	WRIGHT, JAMES	Rawcliffe, near Selby, Yorkshire.
292	1872, Dec. 9	WRIGHT, WILLIAM EDWARD ...	King's Lynn, Norfolk.
749	1890, Feb. 24	WRIGHTSON, ARTHUR FREDERICK	26, Budge Row, E.C.
722	1882, Jan. 30	WYATT, OLIVER NEWMAN	East Street, Chichester.
820	A. 1893, Oct. 4 F. 1895, Nov. 1	*WYLES, JOHN WALTER...	Melrose, Cambridge Park., Wanstead, N.E.
20	1884, Mar. 10	WYLEY, HENRY JAMES	Bridgnorth, Shropshire.
727	1884, Dec. 8	WYLEY, WILLIAM JOHN	2, School Chambers, Shrewsbury.
920	1895, Sept. 2	WYNNE, ALFRED HENRY	Collon, Drogheda, Co. Louth.
45	1891, Nov. 4	YORK, HENRY	East Barnet Valley Urban District Council, Station Road, New Barnet.
99	A. 1881, Jan. 10 F. 1891, Jan. 5	YOUNG, ANDREW	London County Council, 17, Spring Gardens, S.W.
93	1892, Feb. 26	YOUNG, CHARLES	Alton, Hants.
30	1890, May 29	YOUNG, DOUGLAS	51, Coleman Street, E.C.
46	1891, Nov. 4	YOUNG, EDWARD HERBERT, A.M.I.C.E.	Central Chambers, South Castle Street, Liverpool.
21	1895, Sept. 2	YOUNG, GEORGE LAWRENCE ...	Randalstown, Co. Antrim.
73	A. 1891, Nov. 4 F. 1892, Nov. 14	*YOUNG, HARRY AUSTIN LINDSAY	The Johnstone Estate Office, Weymouth, Dorset.
24	A. 1878, Dec. 9 F. 1891, Feb. 2	YOUNG, MORGAN HENRY	17, Southampton St., Bloomsbury Square
47	1891, Nov. 4	YOUNG, OSWALD WILLIAM	Mersey Docks & Harbour Board, Liverpool.
22	1895, Sept. 2	YOUNG, OWEN WALLER O'GRADY	Harristown, Castlerea, Co. Roscommon.
48	1891, Nov. 4	YOUNG, THOMAS	6, Warwick Court, Gray's Inn, W.C.
29	A. 1897, Oct. 26 F. 1900, Feb. 12	*YOUNG, THOMAS JOHN	South Eastern Agricultural College, Wye, Kent.
89	1899, Feb. 16	YUILLE, ROBERT	58, South Portland Street, Glasgow.

Total number of Fellows, 1882.

Professional Associates.

The names of those Professional Associates who have qualified for the Class by Examination are distinguished thus *

The names of those Professional Associates who have further qualified by Examination for, but have not yet been transfe to, the Class of Fellows, are distinguished thus ¶

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
2648	1894, Oct. 30	*ADAMS, GERALD JAS. FREDERICK	Town Hall Chambers, Herne Bay, Ker
2929	1895, Oct. 24	*ADAMS, HERBERT	43, Thornhill Road, Barnsbury, N.
3192	1897, Oct. 26	*ADDIE, JOHN HEATHCOTE	Estate Office, Llanover, Abergaven Monmouthshire.
3072	1896, Oct. 28	*¶ADDISCOTT, HENRY HUGH... ...	25, Doyle Road, Upper Tooting, S.W.
3508	1899, Oct. 30	*ALDERSON, ROWLAND WILLIAM ...	Norton Lees, near Sheffield.
2564	1893, Oct. 4	*ALLEN, JOHN PARNELL	23, Victoria Buildings, Grainger Str West, Newcastle-on-Tyne.
3339	1898, Oct. 29	*ALLPRESS, HORACE EDWARD ...	9, Whitehead's Grove, Chelsea, S.W.
3338	1898, Oct. 29	*ALLSEBROOK, ARTHUR, B.SC. (*Edin.*)	29, Fleet Street, E.C.
3073	1896, Oct. 28	*¶AMBLER, SYDNEY WOOD	10, Leighton St., Woburn, Bedfordsh
2931	1895, Oct. 24	*ANDERSON, THOMAS JOHN	45, Finsbury Pavement, E.C.
3340	1898, Oct. 29	*ANDREWS, ARTHUR GEORGE ...	90, Northgate Street, Chester.
3341	1898, Oct. 29	*ANDREWS, HERBERT GEORGE ...	24, Fanthorpe Street, Lower Richm Road, Putney, S.W.
3074	1896, Oct. 28	*ANDREWS, STEPHEN HAMPTON ...	22, Langdale Rd., Headlands, Scarboro
3193	1897, Oct. 26	*APPLEBY, FRANK SEFTON	138, Lawrence Rd., Wavertree, Liverp
3509	1889, Oct. 30	*ARMSTRONG, JOHN WM. WILSON	"Blacon," Stratford-on-Avon, Warw
1877	1890, Nov. 22	*ARMYTAGE, FRANCIS REGINALD	Windsor House, Shrewsbury. [sh
3042	1896, June 2	*¶ARNO, SAMUEL	Park House, 63, Cawley Rd., S. Hack
3622	1900, Feb. 23	*ARNOLD, ALAN	Westgate Chambers, Winchester, Ha
1750	1890, Feb. 24	*†ASSITER, HARRY G.	19, Old Queen St., Westminster, & W House, Wealdstone, Harrow, Middle
2650	1894, Oct. 30	*ASTLEY, REGINALD BASIL	Acton Reynold, Shrewsbury.
3343	1898, Oct. 29	*ATTLEE, EDWARD GUY...	Leicester House, Penshurst, near bridge, Kent.
1878	1890, Nov. 22	*¶AYLEN, CECIL HUGH	Avondale, Edinburgh Road, Carsha Surrey.
3194	1897, Oct. 26	*¶BADDELEY, BERNARD BERESFORD	Lakefield, Woodberry Down, N.
1281	1885, Dec. 7	*BAKER, CECIL CAUTLEY	Rosses, Co. Sligo, Ireland.
3344	1898, Oct. 29	*¶BAKER, GEOFFREY CLINTON ...	66, Victoria Street, S.W.
553	1879, Dec. 8	BALDING, ALBERT...	57, Coleman St., E.C., & Barkway, H
1522	1888, Dec. 10	*BALL, JAMES BENJAMIN	Engineer's Office, L. D. & E. C. Rai Chesterfield.
2932	1895, Oct. 24	*¶BANKS, FREDERICK STUART ANGUS	101, Bethune Road, Stamford Hill,

† Special Sanitary Science Certificate.

Mip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
567	1893, Oct. 4	*¶Bannister, Tom Harrison Caffyn	Limehurst, Hayward's Heath, Sussex.
880	1890, Nov. 22	*Barclay, Thomas	7, Victoria Rd., Harborne, Birmingham.
510	1899, Oct. 30	*Barker, Frederick George ...	20, Ramsden Road, Balham, S.W.
247	1885, Jan. 26	*Barratt, Harry...	Hill View, Corser Street, Stourbridge, Worcestershire.
490	1899, Feb. 16	*Barratt, Leigh	The Meadows, Felmingham, North Walsham, Norfolk.
346	1898, Oct. 29	*¶Baverstock, Harold Bridge	Messrs. Collier, Son, & Sparkes, Godalming, Surrey.
511	1899, Oct. 30	*Baylis, Alfred William	9, Thanet Road, Erith, Kent.
076	1896, Oct. 29	*Beach, Archibald William Hicks, Capt.	Mancetter House, Atherstone, Warwickshire.
451	1891, Nov. 4	*Beasley, John, Arthur Llewellyn	37, Friar Lane, Leicester.
347	1898, Oct. 29	*Bedwell, Ernest Charles ...	29, Fleet Street, E.C.
651	1894, Oct. 30	*Beken, George, Jun.	65, Cazenove Road, Stamford Hill, N.
033	1895, Oct. 24	*¶Bentley, Harold Edwin ...	Percy Lodge, Twickenham Road, Teddington.
348	1898, Oct. 29	*Berry, Charles Windsor ...	Bracondale, Worple Road, Wimbledon.
349	1898, Oct. 29	*Betenson, Frederic Roger ...	26, Caversham Road, N.W.
350	1898, Oct. 29	*Bettridge, John, Charles Lebon	83, Merton Hall Road, Merton, S.W.
351	1898, Oct. 29	*Bibbey, Thomas	Surveyor's Office, Audley, Staffordshire.
96	1897, Oct. 26	*¶Bickford, Joseph Grant ...	23, Charleville Road, West Kensington.
883	1875, Feb. 1	Bidwell, Shelford	Estates Office, Drayton Manor, Tamworth.
509	1898, Feb. 18	*Bigg, Lionel Thursfield	Plantation Farm, Wolverton, Basingstoke, Hants.
034	1895, Oct. 24	*¶Birch, Francis Julian Laurence	Nettlecombe, Melplash, R.S.O., Dorset.
98	1897, Oct. 26	*¶Bird, John Bowyer...	26, Harrington Gardens, S.W.
99	1897, Oct. 26	*¶Blackshaw, Charles	40A, Stafford Road, Kilburn, N.W.
035	1895, Oct. 24	*¶Blount, Edward	4, Frederick's Place, E.C.
83	1885, Dec. 7	*Blundell, Harry, A.M.I.C.E. ...	Engineer's Office, Great Central Railway, London Road, Manchester.
58	1884, May 5	Blunt, Herbert Arthur, Scawen	Estate Office, Bifrons, nr. Canterbury.
52	1898, Oct. 29	*Blyth, George Alfred	24, Lonsdale Road, Barnes, S.W.
77	1896, Oct. 28	*Boden, Maurice	133, Finchley Road, N.W.
70	1893, Oct. 4	*Bodger, Percy Morris	Alexander Lodge, 4, St. Faith's Lane, Norwich.
59	1884, May 5	Bond, Frederick George... ...	Old Bank House, Ipswich.
36	1895, Oct. 24	*Boord, Walter Bertram... ...	Bewerley, Pateley Bridge, Yorks.
12	1899, Oct. 30	*Booth, Ernest Witton	Borough Engineer's Office, Town Hall, Morley, Yorkshire.
78	1896, Oct. 28	*Bösher, Victor Evans	18, Haldon Road, West Hill, S.W.
31	1886, Dec. 6	*Bousfield, Edwin Vaughan Davenport...	99, Gresham Street, E.C.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
2133	1891, May 23	*Bowden, Ernest Newton	Milford House, Brooklands, Cheshire.
3201	1897, Oct. 26	*Bowden, Harry	5, Grandison Road, Clapham Comm [S.
1523	1888, Dec. 10	*Bower, Arthur, Wentworth Chivers	Moat Hall, Ouseburn, Yorks.
3202	1897, Oct. 26	*¶Brackett, William Newbegin	41, Bath Street, Abingdon, Berks.
3513	1899, Oct. 30	*Bradshaw, Arthur George ...	7, Gage Street, Lancaster. [Bedfo
3079	1896, Oct. 28	*Bradshaw, Arthur Stanley ...	Borough Surveyor's Office, Town H
2937	1895, Oct. 24	*Bradwell, Gervase Hubbart...	4, Pelham Ter., The Park, Nottingham
3514	1899, Oct. 30	*Brand, Edmund	The Grove, Pevensey, Sussex.
1965	1891, Jan. 17	*Brevetor, Thomas	28, Eldon Street, E.C.
1663	1889, Dec. 9	*Bridgford, Leo Appleton ...	28, Cross Street, Manchester.
3623	1900, Feb. 23	*¶Bridgewater, Clement Joseph Bentley	80, Cheapside, E.C.
1374	1887, Feb. 21	*Briggs, John...	London County Council, Spring Gard
3515	1899, Oct. 30	*Brooker, Frederick George ...	Elm Bank, Sevenoaks, Kent. [S
3516	1899, Oct. 30	*Brooks, William Nathaniel ...	The Portculliss, Chipping Sodbu Gloucestershire.
1073	1884, Jan. 28	Brown, Alexander	Home Farm, Hothfield, Ashford.
3353	1898, Oct. 29	*Brown, Arthur Allen	Crown Hill, Croydon.
3491	1899, Feb. 16	*Brown, Arthur Frederick ...	17, Cheyne Gardens, Chelsea, S.W.
3081	1896, Oct. 28	*Brown, Frederick	London County Council, Spring Gard S.W.
3354	1898, Oct. 29	*Brown, Thomas, Jun.	67, Lowther Street, Whitehaven, Cu
1410	1887, Dec. 19	*Brown, William Edward... ...	"Langla," Rosslyn Rd, Watford, He
2626	1894, Feb. 23	*Brown, William Lobin Trant	332, High Road, Kilburn, N.W.
2656	1894, Oct. 30	*Bruce, Alexander David... ...	Elvetham Estate Office, Winchfield, Ha
3517	1899, Oct. 30	*Bruton, Basil Vassar	29, Fleet Street, E.C.
944	1883, May 21	Buckland, William Thomas ...	9, Whitehall Place, S.W.
1691	1890, Jan. 6	*Bulbeck, George	Clanfield, 84, Elms Road, Clapham H
2508	1892, Nov. 28	*Burder, Reginald Edward Campbell	Ham Rectory, Hungerford, Berks.
3203	1897, Oct. 26	*¶Burgess, Henry, Herbert Philip	127, Fordwych Road, Brondesbury,
3355	1898, Oct. 29	*Burroughes, Charles, Fitz-patrick	Stoughton, Leicester.
3204	1897, Oct. 26	*Burrows, Frank Herbert ...	41, Bank Street, Ashford, Kent.
3356	1898, Oct. 29	*Burtenshaw, Albert King ...	Hailsham, Sussex.
3357	1898, Oct 29	*Burton, Reginald Robert ...	78, Alderney Street, Pimlico, S.W.
1412	1887, Dec. 19	*Buss, Fleetwood George William	City Bank Chambers, 44, Theob Road, Bedford Row, W.C.
3358	1898, Oct. 29	*Butcher, Thomas Ewen	The Rowans, Beaconsfield Road Albans, Herts.
2941	1895, Oct. 24	*Butler, Richard Pierce	Ballin Temple, Tullow, Co. Carlow.
3518	1899, Oct. 30	*Buttenshaw, Ernest Newth ...	South View, Sunnyside, St. Albans, H
1160	1884, May 5	Butterworth, Josiah	Mansfield, Notts.

ip. [o.	Date. of Election.	PROFESSIONAL ASSOCIATES.	Address.
358	1894, Oct. 30	*CAMBRIDGE, WILLIAM JAMES ...	Heckford Lodge, Eaton Hastings, Faringdon, Berks.
359	1898, Oct. 29	*CAMPBELL, CHARLES HOWARD ...	Highcroft, Weston-super-Mare Somerset[shire.
'99	1882, Apr. 24	CARD, HENRY	North Street, Lewes, Sussex.
349	1870, Dec. 12	CARDALL, FREDERIC WILLIAM ...	9, Whitehall Place, S.W.
92	1899, Feb. 16	*CARGILL, CAMPBELL FEATHERSTON	Matlock Bridge, Matlock.
360	1898, Oct. 29	*¶CARR, HERBERT FRANCIS ...	The Hollies, Waltham Abbey, Essex.
52	1891, Nov. 4	*¶CARR, THOMAS EDMUND	21, Chapel Road, Redhill, Surrey.
13	1887, Dec. 19	*CARTER, ALFRED PRESLEY	67, Cromwell Avenue, Highgate, N.
07	1897, Oct. 26	*CASSIN, CHARLES LANGA	Mayfield, 94, Catford Hill, S.E.
82	1896, Oct. 28	*CATHCART, ARCHIBALD HAMILTON, THE HON.	31, Grosvenor Place, S.W.
61	1898, Oct. 29	*CHADWICK, SPENCER	2, Pall Mall East, S.W.
72	1889, Jan. 28	*CHALCRAFT, HENRY TERRELL ...	48, Bishopsgate Street Within, E.C.
72	1893, Oct. 4	*CHAMPION, GEORGE ERNEST ...	Redwall Farm, Linton, Kent.
06	1883, Dec. 17	CHAPMAN, VAUGHAN GODFREY ST. JOHN	82, Queen Street, E.C.
16	1896, Jan. 21	*CHART, CHRISTOPHER	Union Bank Chambers, Croydon.
62	1898, Oct. 29	*CHATTELL, FRANCIS LORIOT ...	29A, Lincoln's Inn Fields, W.C.
25	1888, Dec. 10	*CHENEY, Edwin JOHN, M.A. *(Cantab.)* ...	Brooks Hall, Ipswich, Suffolk.
63	1898, Oct. 29	*¶CHESTERTON, FRANK SIDNEY ...	51, Cheapside, E.C.
19	1899, Oct. 30	*¶CHICHESTER, RICHARD HERBERT	Estate Office, Cheswardine, Market Drayton, Salop.
09	1892, Nov. 28	*CHILD, CHARLES	Slinfold, near Horsham, Sussex.
26	1888, Dec. 10	*CHILD, EDMUND HERBERT	Sandiacre, near Nottingham.
08	1897, Oct. 26	*CHIPP, GEORGE	Fontmell Magna, Shaftesbury, Dorset.
20	1899, Oct. 30	*CHURCH, GEOFFREY REDMORE ...	2, Steeles Rd., South Hampstead, N.W.
64	1898, Oct. 29	*CLARK, NATHANIEL, JUN.	Beamish, Pitt Hill, R.S.O., Durham.
09	1897, Oct. 26	*CLARKE, CHARLES WENTWORTH	Olympic Chambers, Land of Green Ginger, Hull, Yorkshire.
21	1899, Oct. 30	*CLARKE, LEONARD EUSTACE ...	9, Chichester Street, W.
10	1897, Oct. 26	*¶CLARKSON, WILLIAM	136, High Street, Poplar, E.
26	1876, Feb. 7	CLAYDEN, WALTER	6, Moorgate Street, E.C.
11	1897, Oct. 26	*COBBE, HENRY ALEXANDER ...	31, Nicholas Lane, Lombard Street, E.C.
35	1889, Dec. 9	*‡COLBOURN, HENRY JAMES... ...	Ulverstone, Tasmania.
35	1898, Oct. 29	*COLE, FRANCIS JOSEPH...	26, Brigstock Rd., Ashley Rd., Bristol.
22	1899, Oct. 30	*COLE, GEORGE HARRY	10, Fernshaw Road, Chelsea, S.W.
23	1899, Oct. 30	*¶COLE, JAMES THOMSON	Fell Court, Torquay, Devon.
02	1884, May 26	COLLIER, ARTHUR CHARLES ...	5, Lancaster Place, Strand, W.C.
31	1890, May 29	*COLLYER, DANIEL WILLIAM ...	Sharples Hall, Bolton-le-Moors, Lanc.
36	1898, Oct. 29	*CONSTABLE, JOHN	Ardle Lodge, Southfields, Wandsworth.
24	1899, Oct. 30	*COOK, EDWARD ARTHUR	Dennington Lodge, Framlingham, Suffolk.

‡ Special Forestry Certificate.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
3212	1897, Oct. 26	*COOKE, FREDERICK ROPER	22, Station St., Port Talbot, Glamorg
2510	1892, Nov. 28	*COOKE, LIONEL	66, Cannon Street, E.C.
3367	1898, Oct. 29	*¶COPE, WILLIAM GEORGE	8, Orchard Street, Portman Square, W
2945	1895, Oct. 24	*CORFIELD, THOMAS	18, Minard Road, Catford, S.E.
084	1896, Oct. 28	*CORY, EDWARD JOHN	High Street, Rye, Sussex.
3213	1897, Oct. 26	*COUNCELL, THOMAS JAMES	2, Queen Anne Buildings, Baldw Street, Bristol.
2946	1895, Oct. 21	*COWELL, HERBERT LEE	Norwood House, Usk, Monmouthshire
3085	1896, Oct. 28	*COWELL, WILFRED LEE	Newquay, Cornwall.
3086	1896, Oct. 28	*¶COWIN, NORRIS TYNWALD ...	19, Denbigh Place, S.W.
747	1882, Feb. 13	COWPER, RICHARD WILLIAM ...	81, High Street, Sittingbourne, Kent
3214	1897, Oct. 26	*¶COWPER, WILLIAM SHAPLAND ...	Tunstall, Sittingbourne, Kent.
2573	1893, Oct. 4	*COX, REGINALD JOHN	19, Preston Street, Brighton.
3525	1899, Oct. 30	*CRAGG, GEORGE EDWIN	Engineering Department, Lancashire Yorkshire Railway, Hollins La Sowerby Bridge, Yorks.
3526	1899, Oct. 0	*CRAMPTON, ARTHUR WESLEY ...	The Park, Mansfield, Notts.
222	1870, Jan. 10	CRAWLEY, WILLIAM JEEVES ...	Sayesbury, Sawbridgeworth, Herts.
2661	1894, Oct. 30	*CREGEEN, HUGH STOWELL, JUN....	"Hurst," Hamilton Road, Sidcup, Ke
615	1881, Mar. 21	CRESSWELL, JOHN THEODORE ROSE	9, Whitehall Place, S.W.
3527	1899, Oct. 30	*CROFT, GEORGE HERBERT	10, Sussex Square, Brighton.
3310	1898, Feb. 18	*¶CRONK, CHARLES TYLEE	Sevenoaks, Kent.
3528	1899, Oct. 30	*CROOK, HOLLIS AUGUSTUS	43, Bridge Avenue, Hammersmith, W
2662	1894, Oct. 30	*CROSIER, CHARLES	43, St. Andrew's Street, Cambridge.
1335	1886, Dec. 6	*CROSLAND, WALTER	Estate Office, Buscot Park, Faringo Berks.
1548	1889, Jan.	*CROUCH, JAMES LEONARD	3, Guildhall Chambers, 33, Basinghall
3043	1896, June 2	*CROZIER, GEORGE FRANCIS... ...	Sallowmount, Ballinasloe, Co. Galwa
537	1879, Mar. 17	CUDLIPP, WILLIAM	33, Poultry, E.C.
877	1883, Jan. 29	CUMBERBATCH, CARLTON PARRY	9, Whitehall Place, S.W. [Ess
3216	1897, Oct. 26	*CUSHEN, CHARLES OSMON	Elmslea, Woodford Road, Snaresbr
3529	1899, Oct. 30	*¶CUTLER, GEORGE ALFRED... ...	West Bank, Lewisham Hill, S.E.
3217	1897, Oct. 26	*DADD, CHARLES JOHN THOMAS ...	London County Council, Spring Gard
945	1883, May, 21	DAFFARN, THOMAS ALFRED ...	12, St. George's Avenue, Tufnell Park, N
3156	1897, Feb. 17	*DAFFORN, GEORGE BERTIE	25, High Street, Wimbledon, S.W.
3369	1898, Oct. 29	*DANCASTER, ARTHUR	"Goodwin," Richmond Park, Bou mouth, Hants.
3218	1897, Oct. 26	*¶DANGERFIELD, THOMAS SAMUEL	14, St. George's Terrace, S. Kensing
3088	1896, Oct. 28	*¶DANIEL, HENRY WILKINSON ...	Care of Messrs. R. Fowler and Son, Colmore Row, Birmingham.
3530	1899, Oct. 30	*DANIEL, HERBERT HOOD	Bank Chambers, Corn Street, Bristo
3531	1899, Oct. 30	*DANN, HENRY, JUN.	Gwynant, Overcliffe, Gravesend, Ke
2628	1894, Feb. 23	*DARBISHIRE, HARRY VERNON ...	Oakdene, Cowden, Kent.

p.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
74	1893, Oct. 4	*DAVID, GEORGE WILLOUGHBY, B.A. *(Cantab.)*	Old Bank Chambers, 27, High St., Cardiff.
19	1897, Oct. 26	*DAVIDSON, RICHARD BRUCE ...	St. John's Villa, 102, Prescot Road, St. Helen's, Lancs.
32	1899, Oct. 30	*DAVIES, JOHN WILLIAM SATTERLEY HUMPHREYS	8, Laurence Pountney Hill, E.C.
39	1891, May 23	*DAVIS, NEVILLE B., A.M.I.C.E. ...	Waterworks Office, Leicester.
57	1897, Feb. 17	*DAVIS, WILLIAM HENRY HAROLD	Lynn Road, Wisbech, Cambridgeshire.
70	1898, Oct. 29	*¶DAWSON, GEORGE CROSBIE ...	Daisyfield, Nuneaton, Warwickshire.
16	1883, May 21	DAWSON, HENRY AUFRERE... ...	29, Lincoln's Inn Fields, W.C. [S.E.
08	1883, Dec. 17	DAWSON, WALTER HENRY	Forster Estate Office, Southend, Catford,
31	1895, Mar. 6	*DELAMARE, FRANK	Clun House, Surrey Street, W.C.
33	1899, Oct. 30	*DELVES, ROBERT HARVEY ADDINGTON	23, Mount Zion, Tunbridge Wells, Kent.
20	1897, Oct. 26	*¶DENTON, WILLIAM	Montgomery Chambers, Hartshead, Sheffield.
34	1899, Oct. 30	*DICKINSON, JAMES MURGATROYD	Millans Park, Ambleside, Westmoreland.
28	1888, Dec. 10	*DIXON, FRANCIS EDWARD, A.M.I.C.E.	49, Lune Street, Preston.
35	1899, Oct. 30	*DODD, EUSTACE CYRIL THEODORE	Belle Vue, Ashcroft Road, Cirencester.
21	1897, Oct. 26	*DOUGLAS, BERNARD MOXON ...	5, Chesterfield Gardens, Oakhill Road, East Putney, S.W.
89	1896, Oct. 28	*DRAPER, EDWIN MAXWELL... ...	2, Lansdowne Villas, Harlington, Hounslow.
48	1882, Feb. 13	DREW, ALLEN...	80, Cheapside, E.C.
22	1897, Oct. 26	*DREW, WALTER HUBERT	Grove Cottage, Cookham Dean, Maidenheads, Berks.
29	1894 Feb. 23	*DRUCE, EDRIC	Cheshire Agricultural College, Holmes Chapel, Cheshire.
36	1899, Oct. 30	*¶DUNLOP, DUGDALE OAKELEY ...	20, Booth Street, Manchester.
24	1900, Feb. 23	*DUNT, JOHN HARLOW	Ambleside, Kempshott Road, Streatham Common, S.W.
71	1898, Oct. 29	*DYER, FREDERICK BURFIELD ...	2, St. Andrew's Place, Lewes, Sussex.
78	1893, Oct. 4	*EASTON, WALTER JOHN	101, Mill Hill Road, Mill Hill Park, W.
80	1893, Oct. 4	*ELGAR, WALTER ROBINSON... ...	Park Road, Sittingbourne, Kent.
72	1898, Oct. 29	*ELLIOTT, ARNOLD...	Tokenbury, Liskeard, Cornwall.
23	1897, Oct. 26	*ELLIS, ALFRED CAVE	57, Chancery Lane, W.C.
73	1898, Oct. 29	*¶ELLIS, ARNOLD ROBERTSON ...	5, Holywell Terrace, Shrewsbury.
91	1896, Oct. 28	*ELPHICK, GEORGE PELHAM... ...	Foregate Street, Chester.
37	1899, Oct. 30	*ETHELSTON, HUGH WICKSTED ...	Hinton, Whitchurch, Salop.
50	1895, Oct. 24	*EVANS, ERNEST SYDNEY	Ovenden, Kingswood Rd., Wimbledon.
17	1896, Jan. 21	*EVANS, PERCIVAL BAKER	55, Oxberry Avenue, Fulham, S.W.
64	1894, Oct. 30	*¶EVE, CHARLES GERALD	Kitbey Estate Office, Yealmpton, near Plymouth, Devon.

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2515	1892, Nov. 28	*EVERED, GILLIEBRAND ELWIN ...	10, Victoria Avenue, Surbiton, Surrey
2516	1892, Nov. 28	*EVERETT, ARTHUR SHERMAN ...	14, Homefield Road, Wimbledon, S.W
2665	1894, Oct. 30	*¶EVERINGTON, JOHN	Merton House, Dulwich Wood Pa Norwood, S.E.
2667	1894, Oct. 30	*FAGG, EDWIN WILLIAM	19, Camden Gardens, Shepherd's Bush
3092	1896, Oct. 28	*FAIR, ARTHUR EDWARD	Estate Office, Haigh Hall, Wigan.
3225	1897, Oct. 26	*FARNHAM, WILLIAM AUGUSTUS...	Town Hall, Milton-next-Sittingbou Kent.
609	1881, Feb. 7	FEW, HARRY GARRARD	3, Upper Richmond Rd., Putney, S.W
3374	1898, Oct. 29	*FIELD, CHARLES ROLAND	54, Borough High Street, S.E.
2668	1894, Oct. 30	*FINCH, CLEMENT ROBERT	Clarendon Lodge, Watford, Herts.
3093	1896, Oct. 28	*FISHER, ROBERT	37, Inman Rd., Craven Park, Harlesd
1123	1884, Mar. 10	FITNESS, JOHN FRANCIS	80, Cheapside, E.C. [N
3044	1896, June 2	*FLEETWOOD, GEORGE SPALDING ...	3, New Court, Carey St., Lincoln's In
916	1883, Apr. 2	FLETCHER, GEORGE RIVERS ...	2, Basinghall Street, E.C.
3018	1896, Jan. 21	*FLIGHT, ALFRED	South Street, Epsom, Surrey.
1888	1890, Nov. 22	*FORREST, WILLIAM	Windsor Estate Office, St. Fagans, Car
1775	1890, Mar. 24	*FORSTER, WALTER HILL	The Grove, Chapel Field, Norwich.
3045	1896, June 2	*¶FOSTER, EDWARD CHARLES ...	54, Pall Mall, S.W.
3375	1898, Oct. 29	*FOSTER, HENRY HELM	Borough Engineer's Office, V Hartlepool, Durham.
3376	1898, Oct. 29	*FOULKES, NOEL MACINTYRE ...	Grove Lodge, Tring, Herts.
3538	1899, Oct. 30	*FOWLER, ALFRED CHAS. STANLEY	153, Fordwych Rd., W. Hampstead,
2732	1895, Mar. 6	*FOX, CHARLES EDWARD	7, Rawson Street, Halifax, Yorkshir
3539	1899, Oct. 30	*FREEMAN, GEORGE	44, Alexandra Road, Wimbledon, S.W
2953	1895, Oct. 24	*FUNNELL, HORACE FREDERICK ...	Hurstleigh, 35, Camberwell Grove, S
751	1882, Feb. 13	FURBER, HENRY AUBREY	2, Warwick Court, Gray's Inn, W.C.
3226	1897, Oct. 26	*¶FURMEDGE, JOHN HARRIS ...	Estate Office, Lucknam, Chippen [W
3094	1896, Oct. 28	*GALE, ARTHUR WITHERBY	Ranelagh Road, Winchester.
1693	1890, Jan. 6	*GALSWORTHY, VINCENT SOMERS	29, Fleet Street, E.C.
1889	1890, Nov. 22	*¶GARRARD, ARTHUR NORMAN ... (*Professional Associate of Council*)	8, Frederick's Place, Old Jewry, E.
2670	1894, Oct. 30	*GARRETT, ARTHUR BERRY... ...	16, Hanover Street, W.
702	1882, Jan. 16	GARROD, HERBERT JAMES	Cheveley, Newmarket.
3540	1899, Oct. 30	*GATE, HENRY ARTHUR ARMYTAGE	20, Mecklenburgh Square, W.C.
3227	1897, Oct. 26	*GAYER, ALFRED EDWARD	Fairfield, Ashcombe Road, We super-Mare, Somersetshire.
3541	1899, Oct. 30	*GENGE, WILLIAM POPE, JUN. ...	Ivy Thorpe, Weymouth Rd., Dorch
3046	1896, June 2	*GETHIN, RANDOLPH GEORGE ..	Holywell, Co. Sligo,

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1894, Oct. 30	*GILBERT, JOHN SAINSBURY... ...	70, Queen Street, Cheapside, E.C.
1896, Oct. 28	*¶GOADBY, HOWARD	Guthlaxton, Marlborough Avenue, Reading, Berks..
1898, Oct. 29	*GOADBY, JOSEPH STUBBINS... ...	[dens, S.W. London County Council, 9, Spring Gar-
1899, Oct. 30	*¶GOFF, JAMES CAUFEILD	Laurel Hill, Kingstown, Co. Dublin.
1899, Oct. 30	*¶GOODMAN, ALFRED	4, Clapton Common, N.E.
1883, May 25	GORE, WILLIAM JOLL	205, Wardour Street, W.
1889, Dec. 9	*GRANT, JOSEPH	[Croydon Avisford, Upper Addiscombe Road,
1897, Oct. 26	*GRAY, HORACE NORMAN	334, Commercial Road, E.
1893, Oct. 4	*GRAY, PERCY WILLIAM	29, St. Andrew's Street, Cambridge.
1896, Oct. 28	*GREEN, ARTHUR EDWARD	49, Bedford Row, W.C.
1883, Dec. 17	GREEN, JAMES HENRY TOWNSEND	22, Chancery Lane, W.C.
1887, Dec. 19	*GREEN, THOMAS JOHN	13, King Street, Maidstone, Kent.
1896, Oct. 28	*GREENFIELD, FREDERICK JAMES	Wood View, Innerbrook Rd., Cockington, Torquay, Devon.
1884, Dec. 8	*GREENOP, EDWARD, A.R.I.B.A. ...	5, Quality Court, Chancery Lane, W.C.
1897, Oct. 26	*GREENWOOD, ERNEST	360, High Road, Chiswick, W.
1892, Nov. 28	*GRIGGS, HENRY JENNER, A.R.I.B.A.	Metropolitan Bank Chambers, Newport,
1884, Jan. 28	GRIMWADE, HENRY	Colchester, Essex. [Monmouthshire.
1898, Oct. 29	*¶GRIPPER, JOSEPH EDWARD ...	Battle, Sussex.
1900, Feb. 23	*GURNEY, RONALD GEORGE	County Hall, Aylesbury, Bucks.
1884, Dec. 8	*HALKYARD, WILLIAM REDFORD	Oakfield Styal Rd., Wilmslow, Cheshire.
1884, May 19	HALL, CHARLES PELL	Park Farm Office, Woburn, Beds.
1896, Jan. 21	*HALL, FREDERICK WALTER... ...	Bailiffgate, Alnwick, Northumberland.
1897, Oct. 26	*HALL, HENRY ALEXANDER THOMAS	26, Upper Leeson Street, Dublin.
1899, Oct. 30	*HALL, JOHN SEBASTIAN	"Valkyrie," Muswell Hill, N.
1895, Oct. 24	*HALL, THOMAS BIDDLE...	64, Church St., Rugeley, Staffordshire.
1882, Feb. 27	HAMILTON, JOHN PAYNTER	64 and 65, Coleman Street, E.C.
1895, Oct. 24	*HANKEY, GILBERT LIONEL	80, Elm Park Gardens, S.W.
1892, Nov. 28	*HANKINSON, FRANCIS HENRY ...	Glendalyn, New Milton, Hants.
1894, Oct. 30	*HARDIMAN, HARRY	Colwyn House, Priory Avenue, Hastings.
1887, Dec. 19	*HARDING, FREDERICK ALLCROFT	44A, Wilton Rd., Victoria Station, S.W.
1895, Oct. 24	*HARDWICK, ARTHUR JESSOP ...	Eagle Chambers, Kingston-on-Thames.
1881, Feb. 21	HARPER, EDGAR JOSIAH	Estate Office, London County Council, Spring Gardens, S.W.
1895, Oct. 24	*HARRISON, ARTHUR	99, High Street, Stockton-on-Tees.
1895, Oct. 24	*HARRISON, CYRIL H. GILMORE ...	Mentmore Estate Office, Ledburn, Leighton Buzzard.
1894, Oct. 30	*¶HARRISON, GEORGE JOHN ROBERTSON	36, Jeffreys Road, Clapham, S.W.
1898, Feb. 18	*HARRISON, HENRY BEAUCHAMP...	Draycot Gardens, Sutton Benger, Chippenham, Wilts. [N.W.
1900, Feb. 23	*HARTLEY, TOM PERCY...	Uffculme, Garlinge Rd., West Hampstead,
1895, Oct. 24	*HARVEY, FREDERICK CHARLES	2, Greaves Villas, The Avenue, Wimborne, Dorset.

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3380	1898, Oct. 29	*HASSETT, REGINALD CHARLES ...	14, Dering Street, New Bond Street.
2585	1893, Oct. 4	*HAWES, FREDERICK KIRK	Longlands, Holkham, Norfolk.
3381	1898, Oct. 29	*HAWKINS, JOHN FREDERICK ...	8, Coleman Street, E.C.
2962	1895, Oct. 24	*HAYWOOD, SAMUEL SPENCER ...	Borough and Water Engineer's Of Municipal Offices, Darwen, Lancash
3234	1897, Oct. 26	*HEAD, WILLIAM ALFRED	Norfolk Lodge, Fentiman, Rd. Clapl S.W.
3382	1898, Oct. 29	*HEAL, HAROLD	52, Bell Street, Henley-on-Thames.
3383	1898, Oct. 29	*¶HEALING, OSWALD JUDD	11, Manor Villas, Church End, Finch
3384	1898, Oct. 29	*HEATH, HENRY CUBITT	Kingsbridge House, Westcombe P S.E.
1287	1885, Dec. 7	*HEBBLETHWAITE, CHAS. HENRY	10, Waterhouse St., Halifax, Yorksh
1014	1883 Dec. 17	HEBDEN, GEORGE RADCLIFFE ...	8, Frederick's Place, Old Jewry, E.C
2678	1894, Oct. 30	*HECKFORD, HARLEY	Surveyors' Department, Vestry Hall, Road, E.C.
588	1880, Dec. 13	HEDGER, ARTHUR CONSTANTINE	44, Charing Cross, S.W.
2526	1892, Nov. 28	*†HELLICAR, GEORGE THOMAS ...	80, Osbaldeston Rd., Stoke Newington
3047	1896, June 2	*HEMPHILL, CHARLES GEORGE CATHCART	11, Ely Place, Dublin.
1353	1887, Jan. 10	*HENDERSON, RICHARD	Portland Estate Office, Kilmarnock.
928	1883, Apr. 16	HENRY, EDWARD HUGH	62, High Street, Clapham, S.W.
2586	1893, Oct. 4	*HEWETT, GEORGE THOMPSON ...	143, High Street, Guildford, Surrey.
850	1882, Dec. 18	HEWITT, WILLIAM...	Penn Grove, Aylstone Hill, Hereford
948	1883, May 21	HICKS, STANLEY	29, Lincoln's Inn Fields, W.C.
2963	1895, Oct. 24	*HICKS, WILLIAM ROOKE	Surveyor's Department, Public B ings, Ealing, W.
1015	1883, Dec. 17	HINCHLIFFE, JOHN, JUN.	Bullhouse Hall, Penistone, Sheffield
3545	1899, Oct. 30	*HINCHSLIFF, EDWARD ROBERT ...	Borough Engineer's Office, Cr Cheshire.
3546	1899, Oct. 30	*HINDMARSH, MICHAEL ANSELM	Craig View, Alnwick, Northumberl
3385	1898, Oct. 29	*¶HINKS, HENRY	23, Tavistock Road, Croydon.
3386	1898, Oct. 29	*HODGES, CECIL STUART	13, Park Street West, Luton, Beds.
1892	1890, Nov. 22	*HODGKINSON, JAMES HENRY ...	Park Villas, Ashton-under-Lyne.
3099	1896, Oct. 28	*HODGSON, ARCHIBALD SANFORD	Mickleham Cottage, Mickleham, Dorking, Surrey.
908	1883, Feb. 26	HOLBECHE, ÆMILIAN HENRY ...	92, Herrick Road, Loughborough.
3235	1897, Oct. 26	*HOLBROW, HERBERT OLIVER ...	9, Clare Street, Bristol.
3387	1898, Oct. 29	*¶HOLL, MACKINTOSH MELENG ...	Sywell, Northampton.
2458	1891, Nov. 4	*HOLLIS, HERBERT	Public Works Department, Jamaica
2459	1891, Nov. 4	*HOLLIS, RALPH	Springfield, Skirlaugh, Hull.
879	1883, Jan. 29	HOLMES, JAMES THOMAS	97, Gresham Street, E.C.
2680	1894, Oct. 30	*HOLMES, JOHN EDWARD	25, Embankment Chambers, Cha Cross, W.C.
3100	1896, Oct. 28	*HOMFRAY, HERBERT RICHARDS	20, Charles Street, Cardiff.
1031	1896 Oct. 28	*¶HOOD, THOMAS	Birdbrook, Halstead, Essex.

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47	1899, Oct. 30	*HOOLEY, ARTHUR JOHN	The College, All Saints, Derby.
31	1884. May 19	HOOPER, ALFRED FREDERICK ...	1, Laura Villas, London Rd., Andover, Hants.
92	1896, Oct. 28	*HOOPER, GERALD HUNTLY	102, Duncaire Street, Belfast.
18	1899, Oct. 30	*¶HOPE, ARTHUR ERNEST	21, Upton Avenue, Forest Gate, E.
35	1895, Oct. 24	*HORTON, WILLIAM PHELPS	119, Heath Street, Hampstead, N.W.
36	1883, Jan. 15	HOWELL, ERNEST JOHN	116, Cromwell Road, S.W.
49	1899, Oct. 30	*HOWGRAVE-GRAHAM, ALAN HERBERT	12, Willow Road, Hampstead, N.W.
38	1898, Oct. 29	*HOWGRAVE-GRAHAM, GEORGE ERNEST	9, Southampton St., Bloomsbury Sq., W.C.
36	1897, Oct. 26	*HOWLAND, ARTHUR FRANK ...	Rushymead, Coleshill, Amersham, Bucks.
50	1899, Oct. 30	*HOWLAND, GEORGE	Rushymead, Coleshill, Amersham, Bucks.
39	1898, Oct. 29	*HUDSON, ALBERT WILLIAM	42, Bishopsgate Street Within, E.C.
90	1898, Oct. 29	*HUMPHRY, MARTIN GEORGE ...	Deeside, Eccleston, Chester.
51	1899, Oct. 30	*HUNT, GEORGE WHITAKER	Madresfield, Malvern, Worcestershire.
52	1899, Oct. 30	*HURLBUTT, PERCIVAL	Dee Cottage, near Flint, North Wales.
37	1897, Oct. 26	*HUTCHINS, RICHARD	Estate Office, Ardnagashel, Bantry, Co. Cork.
93	1890, Nov. 22	*INNES, GILBERT PLANTAGENET MITCHELL	29, Great George Street, S.W.
81	1894, Oct. 30	*IRVINE, ARCHIBALD WYNDHAM	P.O. Box 855, Johannesburg, S.A.R., Transvaal.
82	1894, Oct. 30	*JACKSON, ALFRED ERNEST	City Engineer's Office, Hull.
83	1894, Oct. 30	*JACKSON, EDWARD HENRY	Windermere Buildings, Windermere, Westmoreland.
66	1895, Oct, 24	*JACKSON, LEONARD LABREY ...	Exchange Buildings, Bradford, Yorks.
91	1898, Oct. 29	*JACKSON, ROBERT EWAN	Hall Gowan, Carnforth, Lancashire.
30	1894, Feb. 23	*JARRETT, THOMAS WILLIAM ...	Norman Villa, Canterbury Road, Sittingbourne.
38	1897, Oct. 26	*JENKINS, RICHARD JAMES	Town Hall, Portsmouth, Hants.
50	1879, Nov. 24	JESSETT, CHARLES	3, Great St. Helen's, E.C.
60	1891, Nov. 4	*JESSETT, CHAS. EDWARD VERNON	26, Sarsfeld Road, Balham, S.W.
68	1895, Oct. 24	*JOHN, HENRY BELL	6, Llanbleddian Gardens, Cardiff.
39	1897, Oct. 26	*JOHNSON, HARRY LABRON[3]	Bella Riva, New Brighton, Cheshire.
92	1898, Oct. 29	*¶JOHNSTON, REGINALD	50, Moorgate Street, E.C.
75	1887, Feb. 21	*JONAS, SAMUEL MARSHALL	27, Market Hill, Cambridge.
86	1894, Oct. 30	*¶JONES, DAVID PUGH	Tymaur Road, Llandaff, Glamorganshire,
93	1898, Oct. 29	*JONES, JOHN ARTHUR	Works Department H.M. Dockyard, Malta.
94	1898, Oct. 29	*JONES, PERCY EVERLEY	1, Prince's Street, Westminster, S.W.

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3553	1899, Oct. 30	*JONES, PHILIP VIVIAN	Wood View, Hengoed, via Cardiff.
1018	1883, Dec. 17	JORDAN, GEORGE HENRY	7, Whitehall Place, S.W. [shi
2461	1891, Nov. 4	*JOYCE, HARRY WARD	Wood Str. Asbey-de-la-Zouch, Leicest
1323	1886, May 17	*JULL, WILLIAM VINCENT	8, Delahay Street, S.W.
1894	1890, Nov. 22	*KAY, WALTER ROBERT	Athol Street, Douglas, Isle of Man.
2969	1895, Oct. 24	*KEAY, WILLIAM	6, Milstone Lane, Leicester.
2687	1894, Oct. 30	*KEEP, WILLIAM HENRY	Victoria Park, Andover, Hants.
3554	1899, Oct. 30	*KELLEY, GEORGE WILLIAM CALVER	Pembroke St. Appleby, Westmoreland
2970	1895, Oct. 24	*KEMSLEY, WILLIAM HUGH	41, Bishopsgate Street Within, E.C., a Woodford Green, Essex.
2590	1893, Oct. 4	*KENNETT, CHARLES ARTHUR ...	Camperdown, 30, Nelson Road, Hastin
1077	1884, Jan. 28	KERR, ARTHUR HERBERT	Blake Street, York.
3240	1897, Oct. 26	*¶KERR, JOHN MURRAY	Summerfield Park, Llanidloes, Mo gomeryshire.
3104	1896, Oct. 28	*KEY, ASTLEY COOPER	P.O., Box 94, Johannesburg, S. Africa
3241	1897, Oct. 26	*KIBBLEWHITE, HENRY JAMES TRELEAVEN	14, Grove Terrace, Highgate Road, N
2688	1894, Oct. 30	*KIESER, WILLIAM HENRY GUSTAV	Town Hall, Torquay, Devon.
2689	1894, Oct. 30	*KILLICK, ANTHONY EDWARD ...	29, Terminus Road, Eastbourne, Suss
3395	1855, Oct, 29	*KINCAID, HERBERT EDWARD ...	7, Leinster Street, Dublin.
3555	1899, Oct. 30	*KING, WALTER NIKE	9, Southgate, Wakefield, Yorkshire.
1387	1887, Mar. 21	*KING, WILLIAM ISAAC	The Elms, Rickmansworth, Herts.
3105	1896, Oct. 28	*¶KINGSFORD, PERCY HAMILTON...	The Hollies, Barton Fields, Canterb [K
3493	1899, Feb. 16	*¶KIRBY, EDMUND FRANCIS JOSEPH	5, Cook Street, Liverpool. [S
3021	1896, Jan. 21	*¶KIRK, JOHN WRIGHT	Town Hall, Caxton street, Westmins
3242	1897, Oct. 26	*KNATCHBULL, WYNDHAM PERSSE	Estate Office, Babington, Bath, Somer shire.
2530	1892, Nov. 28	*¶KNIGHT, GEORGE EDWARD ...	2, West Chislehurst Park, Eltham, S
3556	1899, Oct, 30	*KNOWLES, GEORGE POTTER	2, Coleman Street, E.C.
3557	1899, Oct. 30	*LAIRD, NINIAN P.	Kirby Muxloe, near Leicester.
3243	1897, Oct. 26	*LAKE, VIVIAN DAVEY	c/o. S. Pearson and Son, Seaham Harl
3558	1899, Oct. 30	*LAMPARD, SYDNEY MARTIN ...	114, Clapton Common, N.E. [Dur
2973	1895, Oct. 24	*¶LAMPRIL, WILLIAM THOMAS ...	63, Broadway, Stratford, E.
1969	1891, Jan. 17	*LANSDOWN, GEORGE ARTHUR ...	9, Regent Street, Waterloo Place, S
2051	1891, Mar. 14	*LARKIN, RICHARD WEBSTER ...	Cowley House, Cavendish Road, Bal S.W.
3559	1899, Oct. 30	*¶LATHAM, ALBERT TUMMONS ...	5, Crowther Road, South Norwood,
2974	1895, Oct. 24	*LAUMANN, MONTGOMERY PATRICK JOHN	Church Cottage, Bracknell, Berks.
3560	1899, Oct. 30	*LAURENCE, WALTER BERNARD ...	51, Eardley Crescent, Earl's Court,
2494	1892, Feb. 26	*¶LAWLEY, FREDERICK WILLIAM	165, Strand, W.C.

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397	1898, Oct. 29	*LEAKE, ROBERT	"Holmleigh," Palace Gates Road, Wood Green, N.
106	1896, Oct. 28	*LEANE, WALTER BURDITT	Leenwe River Camp, Ashton Swellendam Railway, Cape Colony, South Africa.
244	1897, Oct. 26	*¶LEATHER, WILLIAM BEAUMONT	The Hollies, Clarendon Road, Leeds.
975	1895, Oct. 21	*¶LEE, ERNEST EDWARD ARTHUR	29, Basinghall Street, E.C.
107	1896, Oct. 28	*LEE, FRANCIS BLACKLOCK	The White House, Brampton, Cumberland.
441	1876, Apr. 3	LEE, GEORGE CANSFIELD	36, The Mount, York.
108	1896, Oct. 28	*LEE, HENRY	Victoria Chambers, Bank Plain, Norwich.
161	1897, Feb. 17	*LEESE, VERNON FRANCIS	Bayham Abbey, Lamberhust, Kent.
561	1899, Oct. 30	*LEMMOIN-CANNON, HENRY	3, Holland Road, Brixton, S.W.
971	1891, Jan. 17	*LEWIS, ARTHUR LLEWELYN ...	45, St. John's Park, Blackheath, S.E.
398	1898, Oct. 29	*LEWIS, JOHN	Worley Road, St. Albans, Herts.
562	1899, Oct. 30	*LICKIS, LEONARD	13, Dorlcote Road, Wandsworth Common,
691	1894, Oct. 30	*LIGHTFOOT, FRANCIS PRIDEAUX ...	Estate Office, Dunchurch, Rugby. [S.W.
143	1884, Apr. 21	LIGHTFOOT, JOHN GEORGE	9, Whitehall Place, S.W.
531	1892, Nov. 28	*LITTLE, HENRY	23, Pall Mall, S.W.
563	1899, Oct. 30	*LITTLE, HUDSON	Rose Villa, Wigton Road, Carlisle, Cum-
399	1898, Oct. 29	*¶LLOYD, DONALD	Wells, Somerset. [berland.
564	1899, Oct. 30	*LOFTHOUSE, ALBERT WILSON ...	38, Holgate Cresent, York.
565	1899, Oct. 30	*¶LOMAS, ALBERT DANIEL	Estate Department Lancashire & Yorkshire Railway, Manchester.
245	1897, Oct. 26	*LOMAX, ERNEST GEORGE	Parks Department London County Council, 9, Spring Gardens, S.W.
976	1895, Oct. 21	*LOVEGROVE, CHARLES GRESHAM	Potter's Bar, Middlesex.
355	1887, Jan. 10	*LOWE, CHARLES ROBERT	30, Somerset Street, Portman Square, W.
489	1877, May 14	LUCAS, JOSEPH	21, Defoe Road, Tooting Graveney, S.W.
022	1896, Jan. 21	*LUCK GEORGE EDWARD	Oakmead, Crouch End, N.
566	1899, Oct. 30	*LUKE, JOHN, JUN.	Corporation Road, Belgrave, Leicester.
568	1899, Oct. 30	*LUMLEY, EDWARD ADRIAN ...	22, St James's Street, S.W.
400	1898, Oct. 29	*LUMLEY, FREDERICK ROBERT ...	Testbourne House, Totton, Hants.
204	1884, May 26	LYNCH, JAMES HENRY	37, Norfolk Street, Strand, W.C.
569	1899, Oct. 30	*LYNES, HUMPHREY DOD	Garthmeilis, Corwen, North Wales.
392	1894, Oct. 30	*LYONS, EDWARD COLVILL	Estate Office, Briton Ferry, South Wales.
141	1884, Apr. 21	MCCALLUM, PETER SERVICE ...	Midland Railway, Derby.
592	1893, Oct. 4	*MACER, ALFRED THOMAS	39, Cheapside, E.C.
312	1898, Feb. 18	*MACKENZIE, HECTOR JOHN MAXWELL	17, South Hill, Stoke, Devonport.
327	1900, Feb. 23	*MAGER, SYDNEY	28, Carlton Road, Tufnell Park, N.
109	1896, Oct. 28	*MALLINSON, CHARLES HERBERT	Market Place, Huddersfield, Yorkshire.
394	1894, Oct. 30	*MANN, FREDERICK CHARLES THOMAS	Woking, Surrey.
246	1897, Oct. 26	*MARCHANT, ROBERT CHARLES	103, High Street, Andover, Hants.

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3401	1898, Oct. 29	*MARCUS, WILLIAM MORTIMER ...	20, Strathblaine Rd. New Wandswor
2594	1893, Oct. 4	*MARRIOTT, CECIL WYNN	Newmarket, Cambridgeshire. [S.
3110	1896, Oct. 28	*MARTIN, ALEXANDER WILLIAM...	Godfrey House, Godfrey Hill, Woolwi
1677	1889, Dec. 9	*MASON, CHARLES WILLIAM HAYLEY	206, Marylebone Road, N.W.
3570	1899, Oct. 30	*¶MATTHEWS, DOUGLAS SAMUEL	650, Fulham Road, S.W.
2533	1892, Nov. 28	*‡MAUGHAN, JOHN	Estate Office, Jervaulx Abbey, Midd ham, R.S.O. Yorks.
2695	1894, Oct. 30	MAY, WILLIAM CHARLES	61, Melville Road, Walthamstow, Ess
3247	1897, Oct. 26	*MAYNE, CHARLES MILLARD ...	158, Earl's Court Road, S.W.
3571	1899, Oct. 30	*MEABY, THOMAS JAMES, JUN. ...	Canford, Wimborne, Dorset.
3402	1898, Oct. 29	*MEACHER, EDWARD ERNEST ...	Radnor Chambers, Cheriton Pla Folkestone, Kent.
3403	1898, Oct. 29	*MEACHER, SYDNEY GEORGE ...	South Collingham, Newark, Notts.
2597	1893, Oct. 4	*MELLOR, JAMES FREDERICK ...	110, St. James's Street, Brighton.
1447	1888, Jan. 23	*¶†MELROSE, FRANK	14, Queen Street, Cheapside, E.C.
2977	1895, Oct. 24	*MENMUIR, ROBERT WILLIAM ...	Coverdale, Hatfield Rd., Ipswich, Suff
2535	1892, Nov. 28	*MENZIES, ROBERT...	Merton Estate Office, Thetford, Norf
3572	1899, Oct. 30	*MEREDITH, PERCY WILLIAM ...	3, Salters' Hall Court, Cannon Str []
1145	1884, Apr. 21	MERRETT, JAMES	9, Whitehall Place, S.W.
3573	1899, Oct. 30	*MERRICK, FREDERICK WALTER	Poplar House, Stanwell Moor, Stain
2536	1892, Nov. 28	*MEW, ROBERT HEATH...	The Limes, Redhill, Surrey.
3111	1896, Oct. 28	*MEYER, HORACE LEYCESTER ...	The Cottage, Clarendon Park, Salisb Wilts.
3404	1898, Oct. 29	*MILBOURNE, JOHN SEYMOUR ...	Fairford, Gloucestershire.
2697	1894, Oct. 30	*MILLER, FREDERICK WILLIAM ...	77, Grosvenor Road, Pimlico, S.W.
2537	1892, Nov. 28	*MILLER, GEORGE FREDERICK ...	Town Hall, Hastings.
752	1882, Feb. 13	MILNES, ROBERT	City Surveyor's Office, Guildhall, E.
2698	1894, Oct. 30	*MITCHELL, LEWIS	Paul Chambers, Bury, Lancashire.
248	1897, Oct. 26	*MITCHESON, HARRY	Florence Colliery, Longton, Staffs.
3574	1899, Oct. 30	*MOAT, ERNEST WILLIAM	67, Kennington Oval, S.E.
3049	1896, June 2	*MOERAN, ARCHIBALD EDWARD...	Estate Office, Loughrea, Co. Galway.
3494	1899, Feb. 16	*MOLYNEUX, FRANK EUSTACE ...	Oakhurst, Springfield Rd., Wallingt
1973	1891, Jan. 17	*MOLYNEUX, HERBERT ERNEST ...	80, Cannon Street, E.C.
2598	1893, Oct. 4	*MONSON, HENRY JOHN	School of Agriculture, Gheezeh, C Egypt.
3050	1896, June 2	*MOORE, HUGH ARMYTAGE	Crumlin, Co. Antrim.
3405	1898, Oct. 29	*¶MORRIS, ARTHUR	The Firs, Whitley, Reading, Berks.
2539	1892, Nov. 28	*MORRISH, HUGH KENNETH... ...	7, Commercial Arcade, Guernsey.
2632	1894, Feb. 23	*MORRISON, DANIEL	41, John Dalton Street, Manchester
2599	1893, Oct. 4	*MORRISON, GERARD DONALD ...	High Street, Reigate, Surrey.
1678	1889, Dec. 9	*MUIR, JAMES	Birchlands, Byfleet, Surrey.
3406	1898, Oct. 29	*MULLETT, HENRY THOMAS	56, Talgarth Road, West Kensington

‡ Special Forestry Certificate. † Special Sanitary Science Certificate.

p.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
5	1899, Oct. 30	*¶MUMBY, ELVIN FOWLER	War Office, Horse Guards, Whitehall, S.W.
0	1894, Oct. 30	*NEUBRONNER, HARRY ALFRED ...	Penang, Straits Settlement.
6	1899, Oct. 30	*NEWMAN, HENRY ARTHUR... ...	58, Savernake Road, Hampstead, N.W.
1	1894, Oct. 30	*NICHOLLS, EDWARD ALFRED	Royal Engineer Office, Trincomali, Ceylon.
3	1897, Feb. 17	*NICHOLSON, EBENEZER	105, Cheapside, E.C.
8	1898, Oct. 29	*NICHOLSON, GUY MURRAY... ...	2, Old Queen Street, Westminster, S.W.
3	1896, Oct. 28	*NOBLE, EDMUND JAMES	26, Burns Street, Nottingham.
4	1891, Jan. 17	*¶NOCKOLDS, ALFRED GEORGE	Castle Hill House, Saffron Walden, Essex.
6	1889, Jan. 14	*¶NOCKOLDS, MARTIN CHARLES HUBERT...	Saffron Walden, Essex.
8	1884, Mar. 10	NORRIS, EDWARD JAMES	Pinewood Grange, Camberley, Surrey.
9	1898, Oct. 29	*NUTTER, JOHN	Thorneycroft, Lancaster Rd., Morecambe.
7	1899, Oct. 30	*¶O'BRIEN, DONOUGH RICHARD...	16, Upper Mallow St., Limerick, Ireland.
8	1896, Oct. 28	*¶OLDNALL, ROGER WILLIAM, B.A. (*Cantab.*)	The Sports Club, St. James's Square, S.W.
0	1898, Oct. 29	*ORCHARD, SIDNEY SAMUEL	Pembroke House, Heavitree, Exeter.
1	1898, Oct. 29	*ORWIN, CHARLES STEWART... ...	Markbeech, Eden Bridge, Kent.
4	1896, Oct. 28	*OSBOURN, EDWARD	Margam, Port Talbot, Glamorganshire.
1	1892, Nov. 28	*OUVRY, PETER ARNOLD	The Salterns, Lymington, Hants.
2	1892, Nov. 28	*OVENDEN, CHARLES	Compton, Aldersmead Rd. Beckenham, Kent.
0	1897, Oct. 26	*PAICE, WILLIAM, JUN.	The Limes, Egham, Surrey.
3	1894, Oct. 30	*¶PAIN, WILLIAM HENRY	East Stratton, Micheldever, Hants.
5	1892, Feb. 26	*PALMER, WILLIAM EDWARD KING, A.R.I.B.A.	Huntingdon Lodge, New Malden, Surrey.
9	1895, Oct. 24	*PARKS, WALTER	Sidley House, Bexhill, Sussex.
1	1897, Oct. 26	*PARNACOTT, ARTHUR CHARLES ...	The Ferns, Penge, S.E.
8	1899, Oct. 30	*PARRY, HERBERT MOSTYN	141, Inverness Terrace, W.
4	1894, Oct. 30	*¶PARRY, RICHARD FREDERICK...	Bishops Waltham, Hants.
8	1895, Oct. 24	*PAUL, JOHN WILLIAM	31, Bedford Row, W.C.
2	1875, May 10	PAYNE, WILLIAM PERCY	Holmesdale, The Park, Nottingham.
6	1896, Oct. 28	*PEARCE, CHARLES FREDERICK ...	78, Blenheim Gardens, Willesden Green, N.W.
2	1898, Oct. 29	*PEARCE, DUDLEY FRANCIS	Pulloxhill, Ampthill, Bedfordshire.
3	1898, Oct. 29	*PEARCE, FRANCIS ARTHUR	78, Blenheim Gardens, Willesden Green, N.W.
6	1884, Apr. 21	PEARCE, FREDERICK WILLIAM ...	9, Whitehall Place, S.W.
7	1896, Oct. 28	*¶PEARSE, OCTAVIUS BURROUGHES	Wilton House, Nuncaton, Warwickshire.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
3414	1898, Oct. 29	*PEASE, CHARLES EDWARD	Lancaster Lodge, Lauriston Ro Wimbledon, S.W.
3252	1897, Oct. 26	*¶PEEBLES, PHILIP	Syon House, Brentford.
2634	1894, Feb. 23	*PEGGE, JOHN THOMAS	City Surveyor's Office, Guildhall, Yo
3313	1898, Feb. 18	*PEPPERCORN, HENRY MCARTHUR	Larkfield, Maidstone, Kent.
3118	1896, Oct. 28	*PEPPERCORN, JOHN ARTHUR ...	Eaton Socon, St. Neots, Huntingdonsh
1898	1890, Nov. 22	*PERKINS, JOSEPH	Glencoe, Willows Road, Balsall He Birmingham.
1389	1887, Apr. 18	*PERKS, SYDNEY, A.R.I.B.A.... ...	5 Crown Court, Cheapside.
3579	1899, Oct. 30	*PETCH, JOHN STONEHOUSE	c/o. R. Gough, Esq., Wykeham, York
1021	1883, Dec. 17	PEWTRESS, HERBERT WILMSHURST	15, Cursitor Street, Chancery Lane, W
1129	1884, Mar. 10	PHILLIPS, GEORGE CAWKWELL ...	Clarence St. Southend-on-Sea, Essex
2705	1894, Oct. 30	*PHILLIPS, FRANCIS JOHN	1, Sycamore Villas, Park Avenu Chelmsford, Essex.
1079	1884, Jan. 28	PHILLIPS, JOHN HENRY	130, Mount Street, Berkeley Square,
1418	1888, Jan. 23	*PHILLIPS, WILLIAM DEARLOVE ...	High Wycombe, Bucks.
1342	1886, Dec. 6	*PHYSICK, WALTER FREDERICK ...	30, Somerset Street, Portman Square,
2982	1895, Oct. 24	*PIERCY, FREDERIC ONSLOW ...	The Elms, Lowthorpe, East Yorkshir
1899	1890, Nov. 22	*¶PINDER, RICHMOND	49, Upper Baker Street, N.W.
3253	1897, Oct. 26	*¶PINEGER, JAMES REGINALD ...	c/o. Messrs. J. D. Wood & Co. 6, M Street, W.
3254	1897, Oct. 26	*PINFOLD, FRANCIS ARTHUR ...	Estate Office, L. B. &. S. C. Ry., Lo Bridge Terminus, S.E.
2496	1892, Feb. 26	*POCHIN, THOMAS CLEMENT... ...	Braunston Hall, near Leicester.
4977	1892, Feb. 26	*POGGIO, ELOI JOHN	Public Offices, Dyne Road, Kilburn, N
3580	1899, Oct. 30	*POTTER, SHIRLEY HERBERT ...	St. James' Mansions, West End L Hampstead, N.W.
1343	1886, Dec. 6	*PRATER, THOMAS HERBERT ...	Parlington Estate Office, Aberford, Leeds, Yorkshire.
3628	1900, Feb. 23	*Pratt, FRANK PERCY	97, Gresham Street, E.C.
3314	1898, Feb. 18	*¶PRICE, CAPEL HEREWARD ...	89, St. Pauls Road, Camden Square,
3415	1898, Oct. 29	*PRIESTMAN, ALFRED TUKE... ...	Exchange Buildings, Bradford, Yorks
3629	1900, Feb. 23	*PROTHEROE, ALFRED ERNEST ...	67, and 68, Cheapside, E.C.
1680	1889, Dec. 9	*PUCKRIDGE, PERCIVAL MARTIN...	Milton Pewsey, Wilts.
2985	1895, Oct. 24	*PYE, GEORGE HENRY	Cherry Tree Cottage, Didsbury, La
3120	1896, Oct. 28	*PYLE, BENJAMIN THOMAS RICE	29, Shrewsbury Villas, Plum Plumstead, Kent.
1289	1885, Dec. 7	*RAND, JOHN	Elmfield, Esher, Surrey.
3581	1899, Oct. 30	*RANSOM, THOMAS REGINALD ...	Government Valuation Offices 2, Wellington Place, Belfast, Irel
3416	1898, Oct. 29	*RAWSTRON, CHARLES OLIVER ...	29B, High Street, Rotherham, York
2709	1894, Oct. 30	*READ, WALTER HERBERT	8, The Avenue, Castle Hill, Ealing,
3417	1898, Oct. 29	*REDFERN CHARLES FREDERICK	33, Newhall Street, Birmingham.

p. o.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
18	1898, Oct. 29	*¶REED, RICHARD GEORGE GORDON	Glen Devon, Addiscombe Road, Croydon.
82	1899, Oct. 30	*REEVE, DOUGLAS WILLIAM... ...	"St. Moritz," Mulgrave Road, Sutton, Surrey.
22	1896, Oct. 28	*¶RICHARDON, ARTHUR BAYLIFFE	83, Bishopsgate Street Without, E.C.
83	1899, Oct. 30	*RICHARDSON, ERNEST EDWARD...	23, Trinder Road, Crouch Hill, N.
15	1898, Feb. 18	*¶RICHARDSON, JAMES	
65	1897, Feb. 17	*RICKARDS, ROBERT HILLIER TRAHERNE ANSON	Charles Street Chambers, Cardiff, Glamorganshire.
84	1899, Oct. 30	*RIDDETT, MAURICE CHARLES ...	Town Hall Chambers, Ryde, Isle of Wight
23	1896, Oct. 28	*RIVERS, CHARLES EDWIN	Borough Surveyor's Office, Town Hall, Torquay, Devon.
19	1898, Oct. 29	*¶ROBBINS, WALTER FRANCIS ...	1A, Havelock Road, Hastings.
53	1882, Feb. 13	ROBERTS, CHARLES GORDON ...	42, New Broad Street, E.C.
10	1894, Oct. 30	*ROBERTS, JOSEPH WILLIAM GEORGE...	Yeovil, Somerset. [Park, S.W.
20	1898, Oct. 29	*ROBERTSON, HENRY CHARLES ...	Bolan House, Petworth St., Battersea
24	1896, Oct. 28	*ROBINSON, JOHN BROOKE WOOD	The Swan Inn, Preston Capes, Daventry, Northamptonshire.
03	1882, Apr. 24	ROBINSON, MARTIN CATLIN ...	Wenden, Saffron Walden, Essex.
55	1897, Oct. 26	*ROBINSON, RALPH ETESON	29, Beacon Hill, Camden Road, N.
21	1898, Oct. 29	*ROGERS, PERCY WILLBEN	78, Gloucester Rd., South Kensington, S.W.
86	1895, Oct. 24	*ROGERS, THOMAS GEORGE... ...	Estate Offices, Railway Approach, Archway Road, Highgate, N.
30	1884, Mar. 10	ROSE, EDWARD JOSEPH	58, Corn Market Street, Oxford.
81	1884, Jan. 28	ROSS, DAVID JAMES, A.M.I.C.E.	Surveyors' Office, Guildhall, E.C.
86	1899, Oct. 30	*ROWLANDSON, SAMUEL MESSITER	19, North Bailey, Durham.
95	1890, Jan. 6	*ROWLEY, WILLIAM TAYLOR ...	Royston, Hertfordshire.
01	1890, Nov. 22	*RUDDLE, FRANK J.	London County Council, Spring Gardens, S.W.
27	1896, Oct. 28	*¶RUSSELL, CECIL HERBERT ...	16, Elsham Road, Kensington, W.
87	1899, Oct. 30	*RUTTER, ARTHUR LIONEL	62, Sidney Street, Cambridge.
24	1883, Dec. 17	SABIN, JOSEPH HENRY (*Professional Associate of Council*) ...	7, Whitehall Place, S.W.
57	1897, Oct. 26	*ST. AUBYN, BELVILLE MOLESWORTH, B.A. (*Oxon.*)	Estate Office, Brooke, Isle of Wight.
34	1895, Mar. 6	*SAISE, ALFRED JOHN	Council Offices, Kingswood, near Bristol.
04	1893, Oct. 4	*SAKER, SYDNEY	95-97, Finsbury Pavement, E.C.
05	1893, Oct. 4	*SALE, ARTHUR REED	Viaduct Chambers, Carlisle.
58	1897, Oct. 26	*SALT, HAROLD CROSSLEY, M.A. (*Cantab*)	Milner Field, Bingley, Yorkshire.
24	1887, Dec. 19	*SALT, REGINALD NOWELL	Quarry Place, Shrewsbury.
88	1899, Oct. 30	*¶SANDAY, WILLIAM HENRY ...	15, Great George Street, S.W.
89	1899, Oct. 30	*SANDELL, STANLEY LUNAU	Belcaire, Widmore Road, Bromley, Kent.

Dip. No.	Date of Election	PROFESSIONAL ASSOCIATES.	Address.
971	1883, May 25	*SATCHELL, CHARLES	Hazelmere, Alumhurst Rd., Bournemou
1728	1890, Feb. 10	*SATCHELL, HERBT. A., A.R.I.B.A.	3, Staple Inn, W.C. [Har
2711	1894, Oct. 30	*SAWYER, JOHN ASHTON	62, High Street, Winchester, Hants.
1148	1884, Apr. 21	SCARLETT, HARRY	Preston House, Firle, Lewes, Sussex.
3422	1898, Oct. 29	*SCOBLE, HERBERT THOMAS ...	The Shrubbery, 30, Belmont Hill, Lee, S
2712	1894, Oct. 30	*SCORER, ALFRED GEORGE	Flaxmoor, Caston, Attleborough, Norf
2345	1892, Nov. 28	*SCOTT, THOMAS	The Rectory, Lavenham, Suffolk.
3023	1896, Jan. 12	*¶SCRIVENER, JOHN CHARLES ...	Ecclesbourne, Caterham Valley, Surr
3423	1898, Oct. 29	*SEARLE, SYDNEY	Hamilton House, Florence Rd., Ealing
2637	1894, Feb. 23	*SEDDON, GEORGE FARQUHARSON	24, Finsbury Square, E.C.
2468	1891, Nov. 4	*SEDGWICK, RUPERT WILLIAM ...	38, High Street, Watford.
3260	1897, Oct. 26	*¶SEEL, ROBERT HAROLD	Theatre Royal Chambers, St. M Street, Cardiff.
1729	1890, Feb. 10	*SELBY, FRANK	44, Chancery Lane, W.C.
1234	1884, Dec. 8	*SELBY, JOHN BASELEY	Atherton Hall, Leigh, near Manchest
572	1880, Feb. 16	SEXBY, JOHN JAMES	London County Council, Spring Gard S.W.
1425	1887, Dec. 19	*SHAW, ARTHUR	Ramsden Estate Offices, Railway Str Huddersfield.
3262	1897, Oct. 26	*SHEARER, JAMES HUGHAN	c/o C. Barry, Parliament Mansions, toria Street, S.W.
3424	1898, Oct. 29	*¶SHELDON, HAROLD	Kinderton Street, Middlewich, Chesh
1149	1884, Apr. 21	SHERRY, NATHANIEL	45, Fenchurch Street, E.C.
3263	1897, Oct. 26	*SHORNEY, ARTHUR SHEPHERD ...	2, Parkstone Villas, Stanley Rd., Worce
3590	1899, Oct. 30	*SIMPSON, JOHN HENRY	Woburn Experimental Farm, Ap Guise, R.S.O. Beds.
3261	1897, Oct. 26	*SIMPSON, LESLIE SHEPHERD ...	Quarndon, near Derby.
2714	1894, Oct. 30	*SKEAT, ARTHUR PERCIVAL ...	Londonderry Hall, Dominica, Bri West Indies.
858	1882, Dec. 18	SKINGLE, ALFRED	29, Fleet Street, E.C.
3166	1897, Feb. 17	*¶SKINGLE, ALFRED CHARLES ...	12, Villa Road, Brixton, S.W.
3425	1898, Oct. 29	*¶SKUES, CHARLES AYRE MACKENZIE	Hyrst View, Campden Road, Sou Croydon.
1050	1884, Jan. 14	SLADE, ISAAC	90 & 91, Queen Street, E.C.
3131	1896, Oct. 28	*¶SLY, WILLIAM	Estate. Office, Somerset House, Wh haven, Cumberland.
3426	1898, Oct. 29	*SMITH, ARTHUR PLUMBE	Grosvenor Chambers, Chester.
2989	1895, Oct. 24	*¶SMITH, CHARLES GORDON ...	33, West Bank, Stamford Hill, N.
3591	1899, Oct. 30	*SMITH, DOUGLAS	Stanage Park Estate, Brampton Br Herefordshire.
3427	1898, Oct. 29	*SMITH, FREDERIC	Loddington, Maidstone, Kent.
3428	1898, Oct. 29	*¶SMITH, GEORGE HENRY	1, Worcester Road, Wimbledon, S.W
2052	1891, Mar. 14	*SMITH, JAMES	Borough Surveyor's Office, Town H Buckingham. [Ches
3592	1899, Oct. 30	*¶SMITH, JOHN AMBROSE	The Dale, Tatton Park, Knutsf

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1897, Oct. 26	*¶SMITH, SYDNEY ARTHUR ...	22, Chancery Lane, W.C., and Head Master's House, Maitland Park, Haverstock Hill, N.W.
1895, Oct. 24	*SMITHELLS, EDWIN	Kenilworth, Newport Road, Stafford.
1890, Nov. 22	*SNAILUM, WALTER WADMAN ...	Church St. & Wingfield Rd., Trowbridge, [Wilts.
1897, Oct. 26	*SNOW, HENRY CYPRIAN	Holmdale, Stoneygate, Leicester.
1897, Oct. 26	*¶SOUTHCOMBE, JOHN CHARLES ...	8, Castle Street, Barnstaple, Devon.
1895, Oct. 24	*SOUTHORN, CHARLES HERBERT ...	38, The Parade, Leamington.
1892, Feb. 26	*SOUTTER, ERNEST	The Paddocks, Guildford, Surrey.
1896, Oct. 28	*SPARROW, WILLIAM HUGH ...	Beckminster, Wolverhampton.
1899, Feb. 16	*SPEAKMAN, JOHN MCCLURE ...	The Hawthorns, Whalley Bridge, near Stockport.
1890, Nov. 22	*SPELMAN, WILLIAM WILTON RIX	St. Giles Street, Norwich.
1897, Oct. 26	*STACY, FREDERICK CHARLES WEBSTER	15, Melfort Rd., Thornton Heath, Surrey.
1883, Jan. 15	STACEY, WILLIAM...	80, Cheapside, E.C.
1890, Jan. 6	*STAINTON, FRANCIS CHARLES ...	29, Mansfield Road, Ilford, Essex.
1893, Oct. 4	*STALEY, ALBERT HENRY	Coton Road, Nuneaton.
1898, Oct. 29	*STALLARD, HAROLD ORLANDO ...	Church Farm, Great Thurlow, Suffolk.
1897, Oct. 26	*STANFORD, GEORGE	20, Waldeck Road, Ealing, W.
1898, Oct. 29	*STANTON, FREDERICK WILLIAM SHULTHEISS	c/o J, Mansergh, Esq., 5, Victoria St., S.W.
1882, Jan. 16	STEVENSON, FREDERICK J.... ...	Portland Office, Queen Anne Street, W.
1899, Oct. 30	*STEWART, GEORGE PACKENHAM	21, Westland Row, Dublin, Ireland.
1900, Feb. 23	*¶STIMSON, EDWARD FREDERICK	8, Moorgate Street, E.C.
1897, Oct. 26	*¶STIMSON, HERBERT PERCY ...	2, New Kent Road, S.E.
1897, Oct. 26	*STOKES, HUGH CHARLES	49, Upper Baker Street, N.W.
1897, Oct. 26	*STONEHAM, EDWARD RUSSELL ...	Orchard House, Erith, Kent.
1882, Dec. 4	STOWER, JOSEPH	43, Chancery Lane, W.C.
1896, Oct. 28	*STRAKER, HOWARD	16, Water Lane, Great Tower St., E.C.
1896, Oct. 28	*STUBBING, RICHARD WEBB ...	Calder Bank, Lansdown Rd., Tottenham.
1889, Feb. 11	*STUCKÉ, WM. HENRY, A.R.I.B.A.	P.O. Box 2271, Johannesburgh, S.A.R., and P.O. Box 91, Bloemfontein, O.R.C., South Africa.
1894, Oct. 30	*STUPART, CHARLES WALTER ...	70, Somerset Road, Tottenham, N.
1884, Dec. 8	*STURGE, THEODORE	33, Corn Street, Bristol.
1886, Jan. 11	*STURGESS, JOHN MOORE	Penshurst Park, near Tunbridge, Kent, and 30, Craven Street, Strand, W.C.
1890, Jan. 27	*STURLEY, ARTHUR DYSON	1, Sheen Park, Richmond, Surrey.
1891, Jan. 17	*SUMMERFIELD, JOSEPH CHARLES	73, Chelsea Gardens, S.W.
1899, Oct. 30	*SUTCLIFFE, JAMES HENRY	Hazelwood, Hebden Bridge, Yorkshire.
1898, Oct. 29	*¶SUTTON, FREDERICK STANLEY...	Willow Cottage, 133, Brixton Hill, S.W.
1898, Oct. 29	*SWAN, HAROLD	114, Trinity Road, Upper Tooting, S.W.
1897, Oct. 26	*¶SWANWICK, BRUCE, M.A.(*Oxon.*)	Royal Agricultural College Farm, Cirencester.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
3595	1899, Oct. 30	*TAIT, FRANK VINCENT	31, Pepper Street, Chester.
3135	1896, Oct. 28	*¶TATE, JOSEPH GEORGE	Welbeck, Worksop, Notts.
3274	1897, Oct. 26	*TAYLOR, JOHN FRANCIS WHITE ...	Messrs. Humbert, Son, & Flint, Watf
3596	1899, Oct. 30	*¶TERRY, FRANCIS WILLIAM ...	Hawthorn Villa, The Mount, York.
3597	1899, Oct. 30	*TERRY, FRANK TREACHER... ...	8, Hopton Road, Streatham, S.W.
2718	1894, Oct. 30	*TEWSON, LEONARD	80, Cheapside, E.C.
2549	1892, Nov. 28	*THOMAS EDWARD MORGAN DAWSON	41, Gay Street, Bath.
3434	1898, Oct. 29	*¶THOMAS, CHARLES JOHN HOWELL	Mornington Villa, Hampstead Rd.,
3598	1899, Oct. 30	*THOMAS, GEORGE	50, Chelsea Gardens, S.W.
2719	1894, Oct. 30	*THOMAS, ILLTYD	17, Quay Street, Cardiff.
3435	1898, Oct. 29	*THOMAS, WILLIAM JAMES EDGAR	21, Tresillian Terrace, Cardiff.
1027	1883, Dec. 17	THOMPSON, ALFRED	Estate Department, South Eastern I way, London Bridge, S.E.
2720	1894, Oct. 30	*THOMPSON, CLAUDE WILLIAM GEORGE HUGH	Gladstone Estate Office, Skipto Craven, Yorkshire.
2611	1893, Oct. 4	*THOMPSON, FREDERICK HUBERT	Breadsall Lodge, near Derby.
3275	1897, Oct. 26	*THOMPSON, HAROLD STUART ...	30, Waterloo Street, Birmingham.
2721	1894, Oct. 30	*THOMPSON, JOSEPH ATHERDEN ...	50, Lincoln's Inn Fields, W.C.
2735	1895, Mar. 6	*¶THOMPSON, ROLAND O'BRIEN ...	399, Oxford Street, W.
2500	1892, Feb. 26	*¶THURGOOD, ALBERT EDWARD ...	Town Hall Chambers, Guildford, Su
1100	1884, Feb. 11	THURGOOD, ERNEST CHARLES ...	Estate Office, 98, High St., Lewisham,
3599	1899, Oct. 30	*THURGOOD, LEONARD FIELDER ...	Ringwood, Upper Richmond Rd., Put S.W.
3600	1899, Oct. 30	*TIGHE, ARTHUR	55, Durlston Road, Upper Clapton,
1537	1888, Dec. 10	*TILLY, HUBERT DOUGLAS	50, High Street, Maidenhead, Berks
3136	1896, Oct. 28	*TOWN, HENRY ANNANDALE... ...	20, Eslington Terrace, Newcastle-on-T
1979	1891, Jan. 17	*TOWNSEND, GEORGE JAMES... ...	London County Council, 40, Cr Street, Strand, W.C.
3276	1897, Oct. 26	*TREHARNE, ALFRED FREDERICK ALDRIDGE	45, Lincoln's Inn Fields, W.C.
3436	1898, Oct. 29	*¶TREMLETT, WALTER WILLIAM...	Temple House, Arbury, Nune Warwickshire.
3437	1898, Oct. 29	*TRENT, WILLIAM EDWARD... ...	39, Lombard Street, E.C.
3277	1897, Oct. 26	*TURNER, BENJAMIN FRANKLIN ...	South Eastern Agricultural Col Wye, Kent.
3278	1897, Oct. 26	*TURNER, DRYSDALE	Cheshire Agricultural and Horticul School, Holmes Chapel, Cheshire.
3601	1899, Oct. 30	*TURNER, HENRY	21, St. Paul's Road, Preston, Lancas
3279	1897, Oct. 26	*TURNER, HERBERT	Slade House, Pencisly Rd., Canton, Ca
1394	1887, May 23	*TURNER, PERCY	Dale Hall, Henley Rd., Ipswich, Su
2612	1893, Oct. 4	*TYLER, WILLIAM	Estate Department, L. & N. W. Euston Station, N.W.
3602	1899, Oct. 30	*¶TYPE, MARCUS OSWALD	101, Trafalgar Rd, Moseley, Birming
1168	1881, May 5	UDNY, AUGUSTUS CHARLES... ...	142, Springfield Road, Brighton.

	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
6	1889, Feb. 25	*VALE, HENRY	Darlington Street, Wolverhampton.
0	1897, Oct. 26	*VEIT, LEONARD JAMES...	Borough Engineer's Office, Town Hall, Barrow-in-Furness, Lancashire.
1	1892, Nov. 28	*VENNING, ALFRED JOHN MEYBOHM M.A. (*Oxon.*)	26, Ker Street, Devonport, Devon.
7	1890, Nov. 22	*VERITY, ERNEST GEORGE	51, Golden Square, W.
4	1888, Feb. 20	*WADE, HENRY	10, Pitt Street, Barnsley.
9	1890, Jan. 6	*WAIN, GEORGE SPARROW	8 and 9, Essex Street, Strand, W.C.
5	1895, Oct. 24	*WALDRAM, PERCY JOHN	17, Buckingham St., Charing Cross, S.W.
6	1880, Mar. 1	WALKER, LEON VICTOR	79, Dunsmure Road, Stamford Hill, N.
4	1896, Jan. 21	*¶WALKER, WILLIAM SELVES ...	22, Moorgate Street, E.C.
1	1897, Oct. 26	*WALTON, EDGAR THOMAS	11, Cotherstone Rd., Brixton Hill, S.W.
8	1898, Oct. 29	*WARD, MARTIN HAMMOND ...	Car Mill Cottage, St. Helen's, Lancs.
9	1898, Oct. 29	*WARING, HOLT	Waringstown, Co. Down, Ireland.
3	1899, Oct. 30	*WARMINGTON, HERBERT ANDREW CROMARTIE...	11, Waterloo Place, S.W.
7	1896, Oct. 28	*WARREN, WILLIAM ERNEST ...	4, Bruce Villas, Mount Pleasant, Tottenham, N.
2	1897, Oct. 26	*WARWICK, GEORGE ERNEST ...	171, University Street, Belfast, Ireland.
0	1883, Dec. 17	WATERER, CLARENCE	Dover House, Chertsey, Surrey.
3	1897, Oct. 26	*¶WATERFIELD, HORACE CLARE ...	Armitage, Rugeley, Staffordshire.
0	1891, Jan. 17	*WATSON, CLAUDE HENRY	"Sunnyside," Woolsington, Newcastle-on-Tyne.
4	1899, Oct. 30	*¶WATSON, DAVID ALEXANDER ...	Estate Office, Shirburn, Wallingford.
1	1890, Feb. 24	WATSON, GEORGE	Parliament Mansions, Victoria St., S.W.
4	1893, Oct. 4	*WATSON WILLIAM JAMES	13, Pembroke Square, Kensington, W.
0	1898, Oct. 29	*WEALL, JOHN GRAHAM	Rutland Lodge, Watford, Herts.
2	1892, Nov. 28	*WEATHERHEAD, DAVID WILKINSON	Castle Road, Keighley, Yorkshire.
4	1897, Oct. 26	*WEATHERITT, JAMES	8, Searles Road, Old Kent Road, S.E.
8	1896, Oct. 28	*WEAVER, HENRY PERCIVAL FRANCIS	Lye, Stourbridge, Worcestershire.
0	1888, Dec. 10	*WEBB, FREDERIC NOEL	Babraham, Cambridge.
5	1899, Oct. 30	*WEBBER, HENRY STANTON	2, Hyde Gardens, Eastbourne, Sussex.
1	1898, Oct. 29	*WEEKES, CYRIL SWAFFER	100, Beaufort Street, S.W.
6	1898, Feb. 18	*WEIR, JAMES SCOTT	42, Broughton Rd., South Shields, Durham
1	1883, Dec. 17	*WELLS, EDWARD OGBOURN... ...	9, Whitehall Place, S.W.
6	1899, Oct. 30	*¶WELLS, FREDERIC BEAUCHAMP	Farnborough Cottage, Limpsfield, Surrey
2	1898, Oct. 29	*WELSH, HUGH	Dalzell Estate Office, Motherwell, N.B.
7	1899, Oct. 30	*¶WEST, HERBERT JAMES	Mount Carron, Hainhault Rd., Leytonstone, E.
0	1883, Apr. 16	WESTON, GEORGE	177, Harrow Road, Paddington, W.
1	1883, Apr. 30	WESTON, JOSEPH AURELIUS... ...	83, High Street, Bedford.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1430	1887, Dec. 19	*WHEELER, CHARLES TREVOR OGLE	45, Ebury Street, S.W.
2997	1895, Oct. 24	*WHITE, WALTER ERNEST COATES	Manor Farm, Beedon, Newbury, Ber
3025	1896, Jan. 21	*WHITE, WILLIAM, JUN.	35, Westgate Rd., Newcastle-upon-T
3612	1899, Oct. 30	*WHITELEY, CRYPIAN CHARLES OSWALD	44, Ellison Road, Streatham Com S.W.
2998	1895, Oct. 24	*¶WHITTON, PERCY	24, Gandy Street, Exeter.
3608	1899, Oct. 30	*WIGLEY, SIDNEY PRUDDEN	29, Fleet Street, E.C.
3167	1897, Feb. 17	*WIGRAM, HENRY JOSEPH	The Manor, Collingham, Newark, N
3026	1896, Jan. 21	*¶WILDE, SIDNEY ALGERNON ...	29, Kingswood Road, Clapham Park, S
3609	1899, Oct. 30	*¶WILKINSON, PERCY NEWTON ...	34, Upper Baker Street, N.W.
2146	1891, May 23	*WILKS, ERNEST STRINGER	Douglas Avenue, Hythe, Kent.
3610	1899, Oct. 30	*WILLIAMS, ARTHUR CODRINGTON	Moor Court Farm, Sparsholt, Winche
3285	1897, Oct. 26	*WILLIAMS, DANIEL SMITH	Mountain Ash Urban District Cou Offices, Abercynon, South Wales.
3444	1898, Oct. 29	*WILLIAMS, PETER LLOYD ARMSTRONG...	26A, Albert Bridge Rd., Battersea, S
442	1876, Apr. 3	WILLIAMS, WILLIAM WELSBY ...	Farnham, Surrey.
3140	1896, Oct. 28	*¶WILLOUGHBY, CHARLES ALBERT	22, Chancery Lane, W.C.
1083	1884, Jan. 28	WILLOUGHBY, CHARLES WILLIAM	22, Chancery Lane, W.C.
2472	1891, Nov. 4	*WILSON, JAMES CALVERT	Worsthorne Estate Office, Bur Lancashire.
3446	1898, Oct. 29	*WILSON, JOHN	Langham Hall, Colchester.
2555	1892, Nov. 28	*WILSON, JOHN HAYES	10, Upstall Street, Camberwell, S.E
1449	1888, Jan. 23	*WILSON, WILLIAM EDWARD ...	St. Andrew's Chambers, Albert Sq Manchester.
3286	1897, Oct. 26	*WILTON, JAMES PERCY	Agricultural College, Aspatria, Car Cumberland.
3611	1899, Oct. 30	*WITHAM, JAMES BERNARD	Holly Villas, Ashton Grove, Ashto Mersey, Cheshire.
3429	1898, Oct. 29	*¶WONTNER-SMITH, PERCY	Grasmere, Hendon Lane, Finchley,
3317	1898, Feb. 18	*WOOD, JOHN EDWARD	The Cedars, Sunbury.
2724	1894, Oct. 30	*¶‡WOOD LESLIE STUART, ...	66, Easton Street, High Wycombe, B
3613	1899, Oct. 30	*WOODCOCK, FRANK SYDNEY ...	Cranbrook, Underhill Road, Dulwich, S.E.
3447	1898, Oct. 29	*¶WOOD-MARTIN, HENRY ROGER BROMHEAD	6, Leinster Street, Dublin, Ireland.
2501	1992, Feb. 26	*WOODWARD, WALTER HENRY ...	69, Kennington Oval, S.E.
1358	1887, Jan. 10	*WOOLNOUGH, JOHN WILLIAM ...	6, Vicarage Drive, Eastbourne.
3168	1897, Feb. 17	*WOOLNOUGH, TOM...	Fleet House, Hoppers Road, Winch
3142	1896, Oct. 28	*WORDSWORTH, CHRISTOPHER ...	Brooklands, South Godstone, Surre
1431	1887, Dec. 19	*WORTHINGTON, JAMES SCOTT ...	4, Frederick's Place, E.C.
3288	1897, Oct. 26	*WRIGHT, ERNEST BERESFORD FITZHERBERT	Lowdham Lodge, Lowdham, Notts.
2725	1894, Oct. 30	*WRIGHT, PHILIP CHETWOOD ...	Brattleby Hall, near Lincoln.
595	1880, Dec. 13	WRIGHT, THOMAS HAWKINS ...	The Hermitage, Thrapston, Northam
3614	1899, Oct. 30	*WRIGHT, THOMAS HENRY	"Hawkhurst," Terrapin Road, U Tooting, S.W.

‡ Special Forestry Certificate 1900.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1899, Oct. 30	*WRIGHTSON, JOHN FREDERICK HUTTON, ...	College of Agriculture, Downton, Wilts.
1893, Oct. 4	*WRIGHTSON, ROBERT GARMONDSWAY, M.A. *(Cantab.)*	Lloyds, E.C.
1894, Oct. 30	*WYATT, ARCHIBALD	The Jungle, Porchester, Hants.
1898, Oct. 29	*WYATT, HERBERT GUY BUCKELL	East Street, Chichester, Sussex.
1899, Oct. 30	*YEWDALL, FRANCIS EDWARD ...	Surveyors' Department, Vestry Hall, Islington, N.
1898, Oct. 29	*YOUNG, JAMES DAWBARN	Woodlands, North Hill, Highgate, N.
1895, Oct. 24	*YOUNG, WILLIAM	Oakdene, Harpenden, Herts.

Total number of Professional Asoociates, 736.

Associates.

Date of Election.	ASSOCIATES.	Address.
1897, Oct. 26	ADKINS, WILLIAM RYLAND DENT	2, Temple Gardens, E.C.
1876, Nov. 27	ALVERSTONE, THE RIGHT HONOURABLE LORD, G.C.M.G., MASTER OF THE ROLLS (*Associate of Council*).	Hornton Lodge, Pitt Street, Kensington, W.
1880, Dec. 13	BANKES, JOHN ELDON	3, Hare Court, Temple.
1888, May 14	BARNES, GEORGE FREDERICK ...	London County Council, Spring Gardens, S.W.
1899, Oct. 30	BARRY, CHARLES EDWARD	Parliament Mansions, Victoria Street, Westminster, S.W.
1868, July 27	BARRY, SIR JOHN WOLFE, K.C.B., M.I.C.E. (*Associate of Council*)	21, Delahay Street, S.W.
1875, Dec. 13	BATTEN, JOHN WINTERBOTHAM, Q.C.	3, Harcourt Buildings, Temple.
1879, Feb. 3	BEALE, JAMES SAMUEL	28, Great George Street, S.W.
1892, Feb. 26	BELLEWES, GEORGE OLIVER	45, Parliament Street, S.W.
1899, Feb. 16	BLACKSHAW, JOHN FRANK	The Midland Dairy Institute, Kingston Fields, Derby.
1890, Jan. 6	BOULGER, GEORGE EDWARD SIMONDS	34, Argyll Mansions, Addison Bridge, W.
1868, June 23	BRAMWELL, SIR FREDK. JOSEPH, BART., F.R.S., M.I.C.E.	5, Great George Street, S.W.
1884, Feb. 11	BUND, JOHN W. WILLIS	15, Old Square, Lincoln's Inn, W.C.
1890, May 29	CADELL, GEORGE	The National Club, 1, Whitehall Gardens
1871, Feb. 13	CASTLE, EDWARD JAMES, Q.C. ...	8, King's Bench Walk, Temple. [S.W.
1891, Jan. 17	CLARKE, SIR ERNEST	13, Hanover Square, W.
1883, Dec. 17	CLARKE, SIR EDWARD, Q.C. ...	2, Essex Court, Temple.
1883, Dec. 17	CLODE, WALTER	3, Harcourt Buildings, Temple.
1886, Dec. 6	CLUTTON, HUBERT SPENCER ...	9, Whitehall Place, S.W.
1894, Oct. 30	COLAM, ROBERT FREDERICK ...	4, Essex Court, Temple.
1900, Feb. 23	COURTHOPE-MUNROE, HARRY, M.A. (*Cantab.*)	Palace Chambers, 9 Bridge Street, Westminster, S.W.
1896, Jan. 21	COWARD, JOHN CHARLES LEWIS	3, Pump Court, Temple.
1891, Nov. 4	COWLARD, CHRISTOPHER LETHBRIDGE	Launceston, Cornwall.
1885, Jan. 12	CRIPPS, CHARLES ALFRED, Q.C. ...	1, Essex Court, Temple.
1900, Feb. 23	DANCKWERTS, WILLIAM OTTO ADOLPH JULIUS, Q.C.	7, New Court, Carey Street, W.C.
1898, Oct. 29	DOWNIE, ALEX. FRANCIS MACKENZIE	Alton, Hants.

Date of Election.	ASSOCIATES.	Address.
1892, Nov. 28	EMDEN, T. WALTER L.	105 & 106, Strand, W.C.
1891, Nov. 4	FORBES, ALEXANDER	3, Golden Square, Aberdeen.
1886, Jan. 11	FREAM, WILLIAM	Downton, Wilts.
1878, Feb. 11	FREEMAN, GEO. MALLOWS, Q.C....	Palace Chambers, 9, Bridge Street, S.W., and 11, King's Bench Walk, Temple.
1878, Mar. 11	FRESHFIELD, EDWIN	5, Bank Buildings, E.C.
1876, Mar. 20	FRESHFIELD, WILLIAM DAWES ...	5, Bank Buildings, E.C.
1890, Feb. 24	GAYTON, CHARLES	Much Hadham, near Ware, Herts.
1879, Apr. 28	GEPP, CHAS. BRAMSTON OSBORNE	Chelmsford, Essex.
1895, Mar. 6	GLEN, REGINALD CUNNINGHAM ...	1, New Court, Temple.
1899, Feb. 16	GRAHAM, WILLIAM VAUX	5, Queen Anne's Gate, S.W.
1874, Jan. 5	GRANTHAM, RICHARD FUGE, M.I.C.E.	Northumberland Chambers, Northumberland Avenue, W.C.
1882, Mar. 27	HAMILTON, HENRY BEST HANS ...	1, Brick Court, Temple.
1884, May 5	HAMOND, THOMAS ASTLEY HORACE	Ormond House, Great Trinity Lane, E.C.
1897, Oct. 26	HILL, JOHN SMITH, B.A., B.SC. (*Lond.*)	The Agricultural College, Aspatria, Cumberland.
1887, Jan. 24	HUDSON, ALFRED ARTHUR	5, Paper Buildings, Temple.
1887, May 23	KINCH, EDWARD	Royal Agricultural College, Cirencester.
1896, Oct. 28	KING, WALTER GEORGE...	The Old College, Dulwich, S.E.
1873, Apr. 21	KING, WILLIAM, M.I.C.E.	Gas Office, Duke Street, Liverpool.
1891, Nov. 4	LEWORTHY, JOHN HENRY	29, Fleet Street, E.C.
1874, Feb. 16	LITTLER, RALPH DANIEL MAKINSON, Q.C., C.B.	6, Pump Court, Temple.
1888, Mar. 5	LUARD, MAJOR-GEN. CHARLES EDWARD, R.E.	Ightham Knoll, near Sevenoaks, Kent.
1891, May 23	MALDEN, WALTER JAMES	Agricultural College, Uckfield, Sussex.
1874, Feb. 16	MARRIOTT, THE RIGHT HON. SIR WILLIAM THACKERAY, Q.C.	6, Crown Office Row, Temple.
1886, Dec. 6	MARSHALL, FREDERICK, Q.C. ...	3, Harcourt Buildings, Temple.
1891, Nov. 4	MENCE, PHILLIP ALLAN...	Banstead House, Fontenoy Rd., Balham.
1895, Oct. 24	MILLES, CHARLES WILLIAM	8, Whitehall Place, S.W.

Date of Election.	ASSOCIATES.	Address.
1888, Nov. 12	MOULTON, JOHN FLETCHER, Q.C....	11, King's Bench Walk, Temple.
1882, Dec. 18	MUNTON, FRANCIS KERRIDGE ...	95A, Queen Victoria Street, E.C.
1895, Oct. 24	PAIN, ARTHUR CADLICK, M.I.C.E...	17, Victoria Street, S.W.
1894, Feb. 23	PINCHES, EDWARD EWIN	5, Essex Court, Temple, and 1, Neve Road, South Kensington, S.W.
1888, Mar. 19	POLLARD, EDWARD HUTHINSON ...	3, Elm Court, Temple.
1884, Feb. 11	POPE, SAMUEL, Q.C....	38, Parliament Street, S.W.
1894, Oct. 30	REDMAN, JOSEPH HAWORTH... ...	2, New Court, Lincoln's Inn, W.C.
1868, Nov. 9	REES, JOHN CHARLES	5, Victoria Street, S.W.
1896, June 2	RICHARDS, HENRY CHARLES, Q.C., M.P.	2, Mitre Court Buildings, Temple.
1885, Jan. 26	RICKARDS, ARTHUR GEORGE, Q.C. M.A. (*Oxon.*)	Palace Chambers, 9, Bridge Street, S. and 11, King's Bench Walk, Temple
1882, Jan. 16	RIGG, HERBERT ADDINGTON... ...	41 Parliament Street, S.W.
1895, Oct. 24	RUSSELL, CHARLES ALFRED	2, Harcourt Buildings, Temple, E.C.
1883, April 2	RYDE, WALTER CRANLEY	1, Brick Court, Temple.
1884, Dec. 8	SCOTT, THE HON. HENRY ROBERT	Belvoir Castle, Grantham, Lincolnsh
1889, Feb. 11	SETH-SMITH, ARCHIBALD	Silvermere, Cobham, Surrey.
1888, Apr. 30	SETH-SMITH, FREDERICK	The Lodge, UptonGray, Winchfield, Ha
1896, Jan. 21	SOMERVILLE, WILLIAM, M.A., D.SC.	University of Cambridge.
1884, Jan. 14	STATHAM, WILLIAM ARNOLD... ...	23, Abingdon Street, S.W., and King's Bench Walk, Temple.
1882, Jan. 16	STEPHENS, PEMBROKE S., Q.C. ...	1, Plowden Buildings, Temple.
1886, May 3	STEVENS, WILLIAM RICHARD ...	11, St. Thomas's Street, S.E.
1875, Jan. 4	STRUTT, THE HON. FREDERICK ...	Milford House, Derby.
1896, Jan. 21	STUTFIELD, ALFRED ROBERT OGILVIE	The Bedford Estate Office, Bloomsbu
1877, Dec. 10	SUTTON, HENRY	Farrar's Building, Temple.
1899, Feb. 16	TERRY, GEORGE PERCY WARNER	Town Hall, Caxton Street, Westmins
1891, Nov. 4	THOMAS, GEORGE JAMES	Lond. County Council, 40, Craven St.,
1880, Dec. 13	THOMAS, HUBERT	Watford, Herts.
1899, Oct. 30	VAUGHAN, EDWARD JOSEPH	2, Mitre Court Buildings, Temple, E
1891, Mar. 14	VEASEY, THOMAS FREDERICK ...	5, Copthall Buildings, E.C.
1885, May 18	WARREN, REGINALD AUGUSTUS ...	99, Great Russell Street, W.C.

Date of Election.	ASSOCIATES.	Address.
1884, May 26	WELLS, ALFRED DODD	Sinodun, Wallingford, Berks.
1886, May 17	WHEELER, THOMAS WHITTENBURY, Q.C.	1, King's Bench Walk, Temple.
1876, Dec. 18	WILL, JOHN SHIRESS, Q.C.	Palace Chambers, 9, Bridge Street, S.W., and 2, Garden Court, Temple.
1875, May 15	WINCKWORTH, LEWIS	31, Abingdon Street, S.W.
1870, Jan. 10	WING, THOMAS TWINING	Upper Hale, Farnham, Surrey.
1890, Nov. 22	WRIGHTSON, JOHN	College of Agriculture, Downton, Wilts.

Total number of Associates, 87.

Colonial Fellows.

Date of Election.	COLONIAL FELLOWS.	Address.
1898, Feb. 18	AIYAR, ANATHANDAPURAM VAITHI-CANATHA RAMACHANDRA	Department of Public Works, Vellore, Madras, India.
1893, Oct. 4	ANDERSON, CHARLES WILGRESS ...	Government Land Department, Georgetown, Demerara, British Guiana.
1899, Oct. 30	BAKER, WILLIAM ANTHONY	Surveyor-General's Office, Kingston, Jamaica, B.W.I.
1896, Oct. 28	BATY, SEBERT CONRAD ELTON ...	Victoria, Mahé, Seychelles, Mauritius.
1893, Oct. 4	BOWEN, ERNEST FRANCIS SINDERBY	Public Works Department, Barbadoes, West Indies.
1896, Oct. 28	CLANCEY, JOHN CHARLES	Financial Commissioners' Offices, Rangoon, Burma, India, and 7, Grafton Square, Clapham Common, S.W.
1896, Oct. 28	COOPER, JOHN ASHLEY	Surveyor's Office, Cooper's Hill, Castries, St. Lucia, B.W.I.
A. 1889, Jan. 14 F. 1889, Nov. 25 C.F. 1899, July 6	HODGE, LEONARD PERCIVAL	St. Leonards, Queen's Rd., Kingston Hill, Surrey, and Roseau, Dominica.
1894, Feb. 23	LIDDELL, WALTER COLIN	Kingston, Jamaica, B.W.I.
1896, June 2	MCGAHAN, AMOS HARVEY	Gordon Town, P.O., Jamaica, B.W.I.
1894, Feb. 23	MILLER, WILLIAM	Nassau, Bahamas, West Indies.
1898, Feb. 18	NISBET, JOHN	Royal Societies Club, 63, St. James's St., S.W., and Mandalay, Burma, India.
1900, Feb. 23	PARRY, OSBORNE BARTLETT... ...	Surveyor-General's Office, Kingston, Jamaica, B.W.I.
1898, Oct. 29	ROGERS, COLIN PERCY	R. Eng. Office, The Garrison, Barbadoes.
1897, Feb. 17	USHER, CHARLES RICHARD	Belize, British Hondurus.

Total number of Colonial Fellows, 15.

Students.

Passed Preliminary Examination.	STUDENTS.	Address.
1899	ADAMS, LAWRENCE HAYNES... ...	6, Bank Buildings, Burgess Hill, Susse
1900	ADKINS, JOHN CALEB	Barnt Green, Worcestershire.
1898	ALLEN, FRED TREGARTHEN	12, Gilmore Road, Lewisham, S.E.
1899	ALLEN, LESLIE HERBERT	12, Springfield Gardens, Upper Clapto
1900	ALLSOPP, BENJAMIN GEO. KIDSTONE	49, Madeley Road, Ealing, W.
1898	AMOORE, CHARLES EDWARD... ...	"BoaVesta,"RydalRoad,Streatham,S.V
1899	ANDERSON, HENRY	Messrs. Roberts and Son, Portmadoc.
1900	ASHBRIDGE, PRENTICE MOORE ...	Southweald, Grove Park, Wanstead, E
1900	ASHTEN, ARTHUR WARD	Colonial College, Hollesley Bay, Suffol
1900	ATTLEE, HUGH GUTHRIE	Combmartin, Upper Tooting, S.W.
1897	AUBREY, WILLIAM BEAUCHAMP ...	Springfield Villa, Chelmsford, Essex.
1900	BARCLAY, ROBERT HERMAN... ...	41, High Street, Clapham, S.W.
1899	BARE, ARNOLD EDWIN	64, Lebanon Gardens, West Hill, Wand worth, S.W.
1899	BARKER, CHARLES RUSSELL... ...	15, Nicholas Lane, E.C.
1899	BARKER, HERBERT GRAHAM ...	2, St. Paul's Square, Bedford.
1900	BARTON, SYDNEY FREDERICK ...	Forest View, The Drive, Walthamsto Essex.
1900	BASTABLE, JOHN DANIEL	2, Eidsforth Terrace, Morecambe.
1899	BATTERBURY, NORMAN BONIFACE	Berkhampstead, Herts.
1899	BELL, ALBERT HENRY	Woburn Lodge, Addlestone, Surrey.
1900	BELL, ROBERT SALKELD...	Standing Stone, Wigton, Cumberland..
1899	BENSON, JOHN INGHAM	College of Agriculture, Downton, Wil
1900	BERRIE, VERO LAVERTON	Tamworth, Bickersteth Road, Tootin S.W.
1898	BERRY, ALGERNON LAWRENCE ...	Hillside, Kneesworth Road, Royston Herts.
1897	BINGHAM, WILLIAM RAPER	Highworth, Brockley Park, Forest Hil
1900	BLABER, MONTAGUE	Southdown Road, Shoreham, Sussex.
1899	BLAKE, ALFRED NORMAN	Maisonnette, Willis Rd., Gosport, Han
1900	BLISS, THEODORE STEPHEN	35, Glenton Road, Lee, S.E.
1899	BLYTH, HAROLD KING	Reinville, 30, Cotham Vale, Cothar Bristol.
1899	BOYTON, BERTRAM ALFRED	The Retreat, Church Row, Fulham, S.
1898	BRADLEY, CECIL GUSTAV	103, Tettenhall Road, Wolverhampton
1899	BREALEY, REGINALD WOODHOUSE	Rose Bank, Leek, Staffordshire.

Passed Preliminary Examination.	STUDENTS.	Address.
1898	BRENT, THOMAS	Warwick Hotel, Redhill, Surrey.
1897	BRIERLEY, HUGH COLLEY	Estate Office, Troy, Monmouth.
1897	BROAD, SYDNEY LOWTHER	45, Thorne Road, South Lambeth, S.W.
1900	BROMLEY, ROBERT CECIL	17, Wolseley Road, Crouch End, N.
1898	BROOKER, HUBERT	Elinbank, Steyning, Sussex.
1898	BROWNE, EUSTACE MONTAGUE ...	Court House, Kingsthorpe, near Northampton.
1899	BROWNING, SYDNEY	12, Beaufort Road, Clifton, Bristol.
1898	BUCKLEY, ALFRED EUSTACE	South Field, Halifax, Yorkshire.
1900	BUDGETT, WALTER HENRY	Wells Hill, Radstock.
1898	BURMAN, WILLIAM	Kiveton Park, near Sheffield.
1899	CARTER, WILLIAM JOHN	55, Old Steine, Brighton.
1900	CARPENTER, LAURENCE	The Agricultural Cottage, Aspatria, Cumberland.
1898	CATON, THOMAS LINFIELD	82, Acre lane, Brixton, S.W.
1897	CHATTELL, ARTHUR PAUL	Camden Rise, Chislehurst, Kent.
1899	CHESTERTON, CECIL EDWARD ...	11, Warwick Gardens, Kensington, W.
1899	CHESTERTON, SIDNEY JAMES ...	31, Pembroke Road, Kensington, W.
1900	CHILD, GEORGE MALCOLM	28, The Avenue, Kew.
1898	CHILWELL, CHARLES VYVYAN ...	6, Weymouth Street, W.
1899	CLARK, CUTHBERT HARVEY	18, Palace Gardens Mansions, W.
1899	CLEMENTS, CYRIL JOHN	Stratford House, Mildenhall, Suffolk.
1900	COATES, LAURENCE CALVERT ...	"Homefield," Thurlow Park Road, West Dulwich, S.E.
1898	COBB, ROBERT	Mockbeggar, Higham, Rochester.
1900	COBB, HENRY FREDERICK	Mockbeggar, Higham, near Rochester.
1899	COKER, HARRY REGINALD ELLIS ...	140, East Dulwich Grove, Dulwich, S.E.
1900	COKER, RALPH HECTOR	140, East Dulwich Grove, Dulwich, S.E.
1899	COLE, HERBERT COVINGTON	Greta House, Regent's Park Road, Finchley, N.
1900	COLLYER, CHAS. ALEXANDER STEWART	Estate Office, Ockham, Ripley, Surrey.
1898	COOK, CECIL NEWTON	142, Highbury New Park, N.
1898	COOKE, ARTHUR GEORGE STUART	Estate Office, Forest Hall, Ongar, Essex.
1897	COOKE, FREDERICK NOEL	33, College Street, Leicester.
1900	COOKE, ROBERT TYERS	Junction Road, Belgrave Gate, Leicester.
1897	COPE, GERALD HARWOOD	Broxton, Chester.
1896	CORLETT, LIONEL	6, Felden Street, Fulham, S.W.
1900	CUTLER, HAROLD ARTHUR	Derwent Bank, Addiscombe Road, Croydon.

Passed Preliminary Examination.	STUDENTS.	Address.
1899	DANIELL, FREDERICK STANLEY ...	13, Lexden Road, Colchester, Essex.
1898	DANN, THOMAS	Gwynant, Overcliffe, Gravesend, Kent.
1900	DARLEY, ROBERT BRADSHAW ...	Carrick-on-Shannon, Co. Leitrim, Ireland
1899	DAVIDGE, WILLIAM ROBERT	"Hopetown," Teddington Park Road Teddington.
1900	DAVIES, ALAN COWELL	25, Oppidans Road, Primrose Hill, N.W.
1899	DAVIES, JAMES GEORGE MORRIS	Musgrave Hall, Skelton, near Penrith.
1899	DEACON, STANLEY MARCUS	The Croft, Brownlow Road, Croydon.
1900	DAWSON, ROLAND ERIC	Colonial College, Hollesley Bay, Suffolk
1898	DELLSCHAFT, ADOLPH HEINRICH ...	21, Drayton Park, Highbury, N.
1899	DEMUTH, RICHARD HAROLD	Leek Wootton, Warwick.
1899	DENSHAM, JOHN BOON	Olden Lodge, Purley, Surrey.
1899	DINWIDDY, CONRAD HUGH	12, Croom's Hill, Greenwich, S.E.
1898	DIXSON, WILLIAM JOHN	The Ferns, Newport Pagnell, Bucks.
1899	DODD, HAROLD JAMES	The Glebe, Goring-on-Thames.
1898	DONNE, CYRIL HENRY	Blakesley Hall, Yardley, Birmingham.
1900	DRAKE, FRANK ARTHUR	Boulderwood, Woking, Surrey.
1899	DRIVER, JOHN ROBERT FARRANT	74, Burleigh Street, Cambridge.
1899	DUDLEY, ROLAND	3, Sea View Terrace, Aberavon, S. Wales
1898	EASTWOOD, CHARLES WILLIAM ...	38, Yorkersgate, Malton, Yorks.
1897	EDWARDS, HAROLD EDGAR	29, Blantyre Street, Chelsea, S.W.
1899	ELDRIDGE, DOUGLAS HOWARD ...	"The Rhespas," Mount View Road Crouch Hill, N.
1898	ELGAR, CHARGES JOHN	Crockshard, Wingham, Kent.
1900	ELLIS, PERCY HARRY	Claremont Villa, Claremont Rd., Morecambe, Lancashire.
1897	ELLIS, RUPERT LUMLEY	29, Fleet Street, E.C.
1898	ETLINGER, HENRY	7, Leinster Street, Dublin.
1900	EVANS, GEOFFREY CHARLES	Caldwell, Nuneaton, Warwickshire.
1900	FAIRLIE, EDWARD	Colonial College, Hollesley Bay, Suffolk
1899	FARMER, STEWART FRANK HAYWOOD	98, New Street, Birmingham.
1899	FISHWICK, CHARLES	11, St. Peter's Street, St. Leonard's.
1898	FLETCHER, FREDERIC	Myddelton Lodge, Whetstone, N.
1899	FLETCHER, HAROLD VERNON ...	Penshurst Park, Tonbridge, Kent. [S.
1900	FLEURET, ALFRED HARMAN	12, Hawthorn Dene, Castlenau, Barnes
1898	FOSTER, WALTER	Armaside, Hampton Hill, Middlesex.
1898	FOX, WILLIAM	15, Holdenhurst Rd., Bournemouth Hants.

Passed Preliminary Examination.	STUDENTS.	Address.
1900	FRANCIS, JOHN, JUN.	Myrtle Hill, Carmarthen.
1900	FRASER, IAN SIMON	10, Bellevue Terrace, Edinburgh.
1899	FRANCIS, RONALD GARNHAM ...	South Eastern Agricultural College, Wye, Kent.
1898	FRENCH, CECIL GEORGE	6, Bedford Terrace, Bedford Road, East Finchley, N.
1897	FROST, ALFRED CARDAIN	Sunnybank, Epsom Rd., Morden, Surrey.
1899	GAHAN, REGINALD HUME TOWNSEND	6, Kenilworth Sq., Rathgar, Co. Dublin.
1899	GAHAN, ROBERT BERESFORD ...	Beverston, Dundrum, Co. Dublin.
1898	GAIRDNER, KENNETH GRAEME ...	24, West Hill, Highgate, N.
1897	GETTINGS, SYDNEY SALTER	The Mount, Chester Road, Erdington, near Birmingham.
1898	GIMSON, ALLEN	2, Wordsworth Mansions, Queen's Club Gardens, West Kensington, W.
1898	GLAISIER, EDWARD BROUGHAM ...	Edgecombe Hall, Wimbledon Park, S.W.
1900	GLASIER, MORTIMER SACKVILLE	Edgecombe Hall, Wimbledon Park, S.W.
1900	GLEED, PERCIVAL FRANCIS	Flodden House, Flodden Road, S.E.
1900	GODDING, FRANK HORATIO	69, East India Road, Poplar, E.
1899	GOFF, JOHN TALBOT	College of Agriculture, Downton, Wilts.
1898	GOODBODY, FREDERIC ALLEN STURGE	Chilliswood, Tyndall's Park, Bristol.
1899	GOODGAMES, THOMAS	88, Church Crescrent, Luton, Beds.
1900	GOODWIN, PERCY WORTHINGTON...	The Agricultural College, Aspatria, Cumberland.
1900	GOTELEE, GUY STANLEY...	High Towers, Selborne Rd., E. Croydon.
1897	GOULD, HARMER	29, Woodvale, Forest Hill, S.E.
1900	GRIPPER, JOHN BELL	Lyndhurst, Woking, Surrey.
1898	HALL, CLEMENT ARTHUR	36, Gordon Place, Kensington, W.
1900	HALL, MONTAGUE PRESTON	5, Wedderburn Road, Hampstead, N.W.
1899	HANCOCK, HENRY SYDNEY, JUN....	Sydney Place, St. Austell, Cornwall.
1899	HANSON, HAROLD	Holmwood, Edgerton, Huddersfield.
1898	HARDING, GRAHAM...	66, Cannon Street, E.C.
1899	HARDY, HAROLD CROFT	8, Morella Road, Wandsworth Common.
1900	HARLAND, HENRY CHAPMAN ...	Montrose Estates Office, Catter House, Drymen, N.B.
1899	HARTLEY, RONALD	The College of Agriculture, Aspatria, Carlisle.
1898	HARRISON, CECIL PRYCE	Caerhowel, Montgomeryshire.
1898	HARRISON, ERNEST...	"Westbrook," Bolton-le-Sands, near Carnforth, Lancashire.

Passed Preliminary Examination.	STUDENTS.	Address.
1896	HAWKINS, LANCELOT GOULDER ...	Downham Market, Norfolk.
1899	HEAL, HERBERT GEORGE	"Arnewood," 9, Nelson Road, Southsea Hants.
1900	HEATHCOTT, ROBERT	West Horderns, Chapel-en-le-Frith, Der byshire.
1900	HELLARD, WILFRED BETTESWORTH	Lynwood, Teddington.
1899	HEWETT, RICHARD	Whitelane Farm, Seale, near Farnham Surrey.
1900	HICKMAN, ERNEST FRANCIS... ...	"West Moor," Roehampton, S.W.
1899	HILLYER, WILLIAM HAROLD... ...	"Knockholt," Ravensbourne Park, Cat ford, S.E.
1898	HINCHCLIFF, JOSEPH HENRY ...	Commercial Road, Skelmanthorpe, nea Huddersfield.
1899	HITCHINGS, RICHARD VALENTINE	Shalford, near Guilford.
1898	HODGE, ROBERT THOMAS	Kelvin, Cottenham Park, Wimbledon Surrey.
1900	HOBBS, LANGLEY	Kelmscott, near Lechlade, Oxford.
1900	HOLBECHE, NIGEL LAURENCE ...	21, Bennett's Hill, Birmingham.
1899	HOLBECHE, ROBERT CECIL	21, Bennett's Hill, Birmingham.
1898	HOLMES, MONTAGUE PRICE	Clarendon House, 6, Maida Vale, W.
1899	HOPKIN, PHILIP LEWIS	James Street, Pontardawe, near Swan sea, South Wales.
1899	HOPKINSON, RICHARD BROWN ...	Laurence Dene, Edgerton, Huddersfield
1897	HOUGHTON, WILLIAM CHARLES ...	Pine Lodge, Whitehall Road, Woodford Green, Essex.
1899	HOW, FRANK VIVIAN	West Cottage, Asylum Road, Lincoln.
1900	HOWARD, CHARLES STAVELEY ...	Glenavon, Alum Chine, Bournemouth.
1899	HOWES, ARTHUR BURNABY	193, High Road, Balham, S.W.
1899	HUBBLE, LLOYD UNSWORTH	The Elms, Hunton, Maidstone, Kent.
1898	HUDSON, CHARLES JAMES	Armley House, Bridlington Quay, York
1900	HUNT, FRANK LEWIS	Bridge House, Tooting Graveney, S.W.
1898	HUNT, HARRY	71, Parliament Hill, N.W.
1897	HUTCHINSON, CHARLES FREDERICK	Oak Tree House, Preston, near Hull.
1898	INGRAM, CECIL WALTER	Manor Villa, Bower Mount Road, Maid stone, Kent.
1900	INGRAM, JAMES FRANCIS	29, Vernon Terrace, Brighton.
1899	INSLEY, GEORGE PITRON	Old Studley House, Wimborne Road Bournemouth.
1899	JACKSON, RICHARD STEPHENS ...	117, High Street, Sittingbourne, Kent.

Passed Preliminary Examination.	STUDENTS.	Address.
1898	JAMES, CHRISTIAN WILFRED ...	Rudchester, Wylam-on-Tyne.
1899	JAMES, REGINALD CHARLES... ...	"Trereiffe," Ringwood Road, Poole, Dorsetshire.
1899	JARVIS, WM. HOWARD RIGDEN ...	West Tarring, Worthing, Sussex.
1899	JEFFERY, FRANCIS WILSON	77, St. Helen's Road, Hastings, Sussex.
1899	JOHNSON, ARTHUR WILLIAM ...	Woodland House, Manor Road, Barnet.
1898	JOHNSON, FREDERICK	8, Ingram Road, East Finchley, N.
1900	JOHNSON, RICHARD LESLIE PITT	4, Lambridge, Bath.
1900	JOHNSON, WILLIAM INGLIS	14, Barn Hill, Stamford, Lincolnshire.
1897	JONAS, HAROLD DRIVER	23, Pall Mall, S.W.
1900	JONAS, ROBERT COLLIER	Portley Wood, Whyteleafe, Surrey.
1899	KAINES, RONALD HENRY	Milton, Gillingham, Dorset.
1898	KELLEWAY, HERBERT DAVIES ...	24, Bateman Street, Cambridge.
1898	KEMP, PHILIP REGINALD	11, Chapel Street, Preston, Lancs.
1900	KENT, PHILIP	Rhos-Fynanch, Rhos-on-Sea, Colwyn Bay, North Wales.
1898	KNIBB, FREDERICK CHARLES ...	50, Ingelow Road, Lavender Hill, S.W.
1900	KNIGHT, FREDERICK WILLIAM ...	Darley, Cottenham Park, Wimbledon, S.W.
1899	KNOX, LEONARD NEEDHAM	19, Bryanston Mansions, York St., W.
1899	LAKE, RALPH JULIAN	Heage House, Crouch Hill, N.
1897	LANGRIDGE, WALTER FREDERICK	5, Lansdowne Road, Tunbridge Wells.
1897	LANHAM, LAWRENCE	The Cottage, Dulwich Village, S.E.
1900	LASCELLES, PERCY ST. JOHN ...	Penmaen Dyfi, Machynlleth.
1900	LAVERTON, WILLIAM KING	Glenburn, St. Brannock's Road, Ilfracombe, Devon.
1899	LEACH, HAROLD MINTON	32, Upper Richmond Road, E. Putney.
1899	LEES, RANDLE BURSLAM	99, Antrobus St., Congleton, Cheshire.
1899	LEWIS, EDWARD LLEWELLYN ...	Bryn-derwen, Llandaff, Cardiff.
1898	LISNEY, HARRY	11, Sydenham Road, Sydenham, S.E.
1900	LLOYD, LEWIS HODGENS	3, Elder Avenue, Weston Park, Crouch End, N.
1899	LOWSLEY, SYDNEY EVAN	3, Rectory Terrace, New Hampton Road, Wolverhampton.
1897	MACKINTOSH, WILLIAM SMITH ...	78, Richmond Park Road, Kingston-on-Thames.

Passed Preliminary Examination.	STUDENTS.	Address.
1900	MADGE, WILFRID	Messrs. Beadel, Wood, & Co., 97, Gresham Street, E.C.
1899	MARTIN, TRICE	109, West Street, Farnham, Surrey.
1898	MAY, PHILIP JOHN...	25, Compton Avenue, Brighton, Sussex.
1900	MELLERS, ERNEST JOHN WILLIAM	Broadstone Hill, Heythrop Park, Chipping Norton.
1900	MILES, CECIL LOMER	22, Parkhill Road, Hampstead, N.W.
1897	MICHELL, HENRY LINGWOOD ...	205, Upper Richmond Road, Putney.
1900	MINORS, ERNEST	Borough Engineer's Office, Town Hall, Wolverhampton.
1900	MITCHELL, HAROLD HASTINGS ...	2, North Parade, Winchcombe Street, Cheltenham.
1898	MITCHELL, HERBERT ARTHUR ...	105, Western Road, Brighton, Sussex.
1900	MOORE, RICHARD CHARLES ...	72, Amhurst Park, Stamford Hill, N.
1897	MORLE, DENZIL ADAIR	102, Jermyn Street, S.W.
1900	MORRIS, JOHN STANLEY	Chirbury, Shropshire.
1898	MOSS, CHARLES PERCY...	58, Ashley Road, Crouch Hill, N.
1900	MULLINS, PATRICK WILLIAM ...	14, Caversham Road, N.W.
1900	MUNDELL, JOSEPH EDWARD ...	"Litton," Longfleet, Poole, Dorset.
1900	MURTOUGH, JOSEPH	Avondale, St. George's Square, Portsea, Hants.
1900	MYTTON, PHILIP ALDRED	Garth, Welshpool, Montgomeryshire.
1899	NEATE, ARTHUR WHISTLER	Speenhamland, Newbury, Berks.
1899	NEAME, FREDERICK IVO	Macknade, Faversham, Kent.
1897	NEWSOME, SAMUEL HENRY	High House, Alvechurch, Worcestershire.
1899	NOTLEY, LESLIE RICHARD	Larksfield, Englefield Green, Staines.
1898	OATEN, ALFRED EDWARD	Glenthorpe, Fairfield Road, Montpelier, Bristol.
1900	ORCHARD, ALFRED DEAN	11, Wood Street, Ashby-de-la-Zouch.
1899	OVERTON, WILLIAM HENRY... ...	6, Compton Avenue, Brighton.
1899	PARNWELL, SYDNEY ARTHUR ...	68, Colveston Crescent, Dalston, N.
1899	PARSONS, MAURICE HARRY DONNE	Rosemount, Exeter, Devon.
1900	PARSONS, MEREFIELD DONNE ...	Rosemont, Exeter, Devon.
1900	PATTISSON, WILLIAM HENRY MUNNINGS	Church Farm, Great Thurlow, Suffolk.

Passed Preliminary Examination.	STUDENTS.	Address.
1900	PAUL, FRANCIS	13, Nicoll Road, Harlesden, N.W.
1900	PAVITT, HAROLD WILLIAM	Tarrangower, Willesden Lane, Brondesbury, N.W.
1900	PECK, HOWARD	Colonial College, Hollesley Bay, Suffolk.
1899	PERKIN, DAN WARD	Gulworthy, Tavistock, Devon.
1899	PERKINS, CHARLES FEARNALL ...	Englehome, Sea Road, Boscombe, Hants.
1899	PITT, PHILIP SEPTIMUS	53, Bateman Street, Cambridge.
1900	POOLE, HERBERT HENRY	67, Addison Road, Kensington, W.
1900	PORTER, DOUGLAS DAVID	27, Belsize Square, Hampstead, N.W.
1898	POTTIER, GEORGE LOUIS	2, St. George's Villas, Whipp's Cross, Walthamstow, N.E.
1899	PRIEST, ALBERT EDWARD	Hawnedale, Old Hill, Staffordshire.
1900	RAWLENCE, DUNCAN ALFRED ...	Newlands, Salisbury, Wilts.
1899	REANEY, HAROLD DE LISLE... ...	24, Ranelagh Road, Ealing.
1899	REED, CHARLES CECIL	Beeford Grange, Beeford, nr. Hull, Yorks.
1899	REED, EDWARD	Downlands, Rottingdean, Sussex.
1897	RENDELL, HARRY SYMONS	Forde View, Newton Abbot, Devon.
1899	REES, WILLIAM HAROLD	154, Croydon Road, Anerley, S.E.
1899	RICHARDSON, ERNEST CHARLES ...	Stamford, Lincolnshire.
1898	RICHARDSON, HAROLD THOMAS ...	52, Southbrook Road, Lee, S.E.
1899	RIPPENGAL, ARTHUR HENRY ...	19, Cameron Road, Croydon.
1899	ROBINSON, JOSSLYN ALLEYNE ...	Market Square, Kirkby Lonsdale, Westmoreland.
1899	ROSS, NORMAN HERBERT	Glen Mohr, Vanbrugh Hill, Blackheath.
1898	ROWE, GILBERT CHARLES	Quantock, Babington Road, Streatham.
1899	ROWLANDSON, GEO. ARMSTRONG	Mossgill House, Crossby Garrett, Kirkby Stephen, Westmoreland.
1900	RUMSBY, WALTER SAMUEL	Ennisfall, King's Road, Lansdowne Park, Bournemouth.
1899	RUSSELL, HUMPHREY GLADSTONE	Boconnor, Benhil Street, Sutton, Surrey.
1897	RUTLEY, ARTHUR DENNETT ...	Birchwood, Caterham Valley, Surrey.
1899	SACKETT, SIDNEY RUPERT	Wingfield House, Orsett, Essex.
1899	SCOLLICK, ERNEST ARTHUR... ...	3, Church Road Villas, Burgess Hill, Sussex.
1900	SEALE, PERCY JAMES	Manor Farm, Bidborough.
1897	SHARPE, EDWIN	Measham, Atherstone.
1900	SHARPE, GERALD HENRY	Selby Oak Vicarage, Birmingham.

Passed Preliminary Examination.	STUDENTS.	Address.
1898	SHAW, WILLOUGHBY JOHN	The Gardens, Muncaster Castle, Raven glass, via Carnforth.
1900	SHEDLOCK, NORMAN GEORGE ...	13, Waldeck Road, Ealing, W.
1900	SHEPHARD, JOSEPH ERNEST... ...	21, Grange Road, Canonbury, N.
1898	SHONE, LEIGHTON EDWARD	Woodhouses, Whitchurch, Salop.
1899	SHORT, HERBERT DOUGLAS	10, Waterloo Place, S.W.
1899	SLADE, JAMES HARCOURT	West Lodge, Upminster, Essex.
1898	SLIPPER, WALTER JOHN	16, Duke's Street, Chelmsford, Essex.
1900	SLOMAN, ROBERT MORTIMER ...	Ivy Bank, West Norwood, S.E.
1899	SMALLMAN, HENRY RICHARD GEORGE STRONG...	Stanstead, Sutton, Surrey.
1898	SMITH, CYRIL HERBERT	Buckhill, Calne, Wilts.
1899	SMITH, DOUGLAS HENRY	7, Marine Avenue, Westcliff, Southend [on-Sea
1900	SMITH, FRANCIS HENRY GEORGE OSMOND	Cleveland House, Granville Road, Broad stairs, Kent.
1899	SMITH, HUBERT GEORGE	Boughton Monchelsea, Maidstone, Kent
1898	SMITH, QUENTIN CULLEN	Sunnyside, Muswell Hill, N.
1899	SMITH, STANLEY ADDISON	"Sunnyside," Monkseaton, Newcastle on-Tyne.
1899	SMITH, WARWICK HUGHESDON ...	93, St. Mary Street, Cardiff.
1899	SMYTH, THOMAS WILLIAM	82, High Street, Barnstaple, Devon.
1898	SOPER, HAROLD	Winfield, Wilbury Avenue, Hove.
1898	SPALDING, FRANK EWART	3, Lyndhurst Road, Hampstead, N.W.
1900	STEERE, EDWARD CECIL	11, Grosvenor Road, Richmond, Surrey
1899	STEPHENS, JOHN RYLE	Martello Terrace, Holywood, Co. Down
1899	STOCKINGS, ARTHUR PERRY ...	Rowan House, Cheshunt, Herts.
1899	STONE, CYRIL FRANK	10, Proctor's Row, Wigton, Cumberland
1899	STONE, FREDERIC	2, Ridgegrove Villas, St. Stephen's Launceston, Cornwall.
1898	SWEETMAN, GERALD DRYSDALE ...	Windsor House, 13, St. Thomas' Street Ryde, Isle of Wight. [E.
1900	SYMES, WILLIAM CHARLES	7, Bideford Mansions Rosebry Avenue
1897	TANNAHILL, ARTHUR WALTER ALFRED CLAUDE	Firsleigh, Alexandra Road, N. Finchley
1897	TANNER, RUDOLPH	29, Pelham Place, S. Kensington, S.W.
1900	TATE, HENRY TINDALL	25, Otley St., Skipton-in-Craven, York
1900	TAYLER, VIVIAN ALFRED	198, Brighton Road, South Croydon.
1900	TAYLOR, ADOLPHUS LAMBERT ...	Nuttall, Nottingham.
1900	TAYLOR, EDWIN THURLOW	Ashlyn, Ansdell, Lytham, Lancashire.
1899	TAYLOR, SAMUEL DAVIS	Oak Lawn, Shottermill, near Haslemere Surrey.
1897	TAYLOR, WILLIAM HENRY	Nuttall, Nottingham.
1899	TEMPLE, EDGAR GUY	Fraser House, Margery Park Road Forest Gate, E.

Passed Preliminary Examination.	STUDENTS.	Address.
1899	THOMPSON, WILLIAM	8, Cavendish Place, Carlisle, Cumberland.
1900	THORNTON, ARTHUR BRUCE... ...	Bawdsey Estate Office, Suffolk.
1900	TIDEY, HERBERT GORDON	45, Queen Elizabeth's Walk, Stoke Newington, N.
1900	TILLYARD, SIDNEY JOSEPH	43, Thorpe Road, Norwich, Norfolk.
1899	TOMLIN, FRANCIS FERRIER	49, Lordship Lane, Wood Green, N.
1900	TOMLIN, WILLIAM, JUN.	Hollydene, Alpha Rd., Birchington, Kent.
1898	TONSON-RYE, JOHN REGINALD ...	Rye Court, Crookstown, Co. Cork.
1898	TREDINNICK, ERNEST DAVEY ...	The Gardens, Lydbury North, Shropshire.
1898	TURNER, JABEZ TENNYSON	27, Grove Road, Wanstead, Essex.
1897	TURNER, VINCENT	Water Engineer's Office, Town Hall, Wakefield.
1900	UTTERTON, FRANK LE COUTEUR...	Leatherhead Vicarage, Surrey.
1900	VERNON, EUSTACE NIGEL MAULE	The Agricultural College, Aspatria, Cumberland.
1900	VICKERMAN, MONTAGU HAROLD...	Radnor Lodge, Wembley, Middlesex.
1898	VINCE, CLEMENT HARWOOD... ...	The Tower House, Halton, near Lancaster.
1897	WACHER, THOMAS BLAKE	Ethelburt Road, Canterbury.
1898	WADHAM, GERALD DOUGLAS ...	Millwood, Dalton-in-Furness, Lancashire.
1900	WALDER, WILLIAM SEARCY... ...	62, Wellesley Road, West Croydon.
1898	WALKER, GILBERT RUSSELL ...	The Chestnuts, Long Ashton, Somerset.
1900	WALKER, JAMES WILLIAM BOYD DLGN	"Heidelberg," Albany Road, Southsea, Hants.
1900	WALKER, WILFRID ARTHUR ...	Long Ashton, Clifton, Bristol.
1898	WALTON, LEON MAITLAND	Ingleside, Manor Way, Bexley, Kent.
1900	WARD, EDWARD JOHN	8, Havelock Terrace, Stoke, Devonport.
1899	WARD, FRANK...	47, Cowley Road, Leytonstone, E.
1899	WATT, ALEXANDER LINDSAY ...	The Agricultural College, Aspatria, Carlisle.
1900	WATT, EDWARD WILSON	Colonial College, Hollesley Bay, Suffolk.
1899	WEBBER, ARTHUR DANIEL MOUTRAY	University College, Bangor, N. Wales.
1899	WESTLAKE, WILLIAM JOHN WALTER	15, Rochester Road, Carshalton, Surrey.
1899	WHARTON, PERCY HAMILTON ...	35, Kent House Road, Beckenham, Kent.
1899	WHEATLEY, MERVYN JAMES ...	High Street, Poole, Dorsetshire.
1897	WHEELER, FRANK CORNELIUS ...	4, Frederick's Place, Old Jewry, E.C.
1898	WHEELER, FRANCIS WEST... ...	189, Fulham Road, S.W.

Passed Preliminary Examination.	STUDENTS.	Address.
1899	WHITE, JOHN WILLIAM EDDEN ...	4, Calverley Terrace, Tunbridge Wells Kent.
1899	WHITEHEAD, ERNEST MORTIMER...	95, Earlsfield Road, Earlsfield, S.W.
1900	WHITEHEAD, THOMAS GUSTAVUS...	10, South Grove, Tunbridge Wells, Ken
1899	WHYTEHEAD, JOHN LAYARD ...	The Vicarage, Warminster, Wilts.
1897	WIDDICOMBE, CHARLES EDWIN ...	The Avenue, Cambridge.
1899	WILKS, CLEMENT	15, St. Mary's Road, Highbury, N.
1899	WILLIAMS, PAUL SADDINGTON ...	25, De Vere Gardens, Kensington, W.
1900	WILLMOT, ARTHUR CHARLES ...	Melrose, Southbank Road, Kenilworth Warwickshire.
1899	WILLMOTT, HARRY RUSSELL ...	Spital House, Chesterfield, Derbyshire
1899	WILSON, HUGH MILLER	One Ash, Kettering, Northamptonshire
1898	WILSON, LANCELOT ELCE	29, Broadgate, Lincoln.
1899	WOOD, HERBERT CALVERT	Dovenby Estate Office, Cockermouth.
1899	WOOD, JOHN GUY	South Eastern Agricultural Colleg Wye, Kent.
1899	WOOD, ROWLAND HARRY	4, Worthing Road, Horsham, Sussex.
1900	WOOLLEY, WILLIAM EDWARD ...	Charnwood, Wilton Rd, Salisbury, Wil
1899	WRIGHT, FRANCIS	Danbury, Chelmsford, Essex.
1899	YOUNG, CHARLES ALEXANDER ...	167, Brixton Road, S.W.
1898	YOUNG, KENNETH JAMES	167, Brixton Road, S.W.

Total Number of Students, 331.

SUMMARY.

Honorary Members	17
Fellows...	1,882
Professional Associates	736
Associates	87
Colonial Fellows	15
Students	331
Total	3,068

NOTE.—To ensure the regular transmission of the Papers and Notices, it particularly requested that any changes of address be communicated at once to Secretary.

Members of the Institution who have passed the Fellowship Examination.

* *Those to whose names a star is affixed have passed the Fellowship Examination, but have not yet been transferred to the Class.*

1893 ABRAMS, BENJAMIN PERCY.
1900 *ADDISCOTT, HENRY HUGH.
1888 ADKIN, BENAIAH WHITLEY (*Special Sanitary Science Certificate*, 1893).
1897 ALLEN, PERCY.
1899 *AMBLER, SYDNEY WOOD.
1893 AMOS, FRANK (*Crawter Prize*, 1893).
1899 ANGEL, FRANCIS HOUGHTON.
1892 ANSCOMBE, ERNEST.
1895 ARIS, JOHN WHITTON.
1900 *ARNO, SAMUEL.
1894 ARNOTT, JOHN.
1897 ASHENDEN, LEONARD THOMAS.
1887 AUSTIN, RICHARD, JUN.
1891 *AYLEN, CECIL HUGH.

1899 *BADDELEY, BERNARD BERESFORD
1895 BAILEY, LEWIS HEWITT.
1899 *BAKER, GEOFFREY CLINTON.
1891 BALL, WILLIAM ALFRED.
1893 BANCROFT, FREDERICK HERBERT
1898 *BANKS, FREDK. STUART ANGUS (*Penfold Gold Medal*, 1898).
1895 *BANNISTER, TOM HARRISON CAFFYN.
1898 BARKER, GEOFFRY LIONEL.
1891 BARNES, GEORGE FREDERICK.
1899 BARNS, STEPHEN ALLEN.
1900 *BAVERSTOCK, HAROLD BRIDGE.
1893 BEADEL, FREDERICK MAURICE.
1889 BEARD, EDWIN THOMAS.
1884 BEDELLS, CHARLES HERBERT.
1895 BELCHER, EDWARD JOHN.
1896 BELL, HERBERT OWEN.
1893 BELLINGHAM, ARCHIBALD TURNER.
1888 BENSON, ROBERT ALAN (*Bracketed Special Prize*, 1884).
1897 *BENTLEY, HAROLD EDWIN.
1893 BEVEN, SEPTIMUS.
1899 *BICKFORD, JOSEPH GRANT.
1894 BIDWELL, JOHN EVANS.
1898 BIDWELL, PHILIP SHELFORD.
1900 *BIRCH, FRANCIS JULIAN LAURENCE.
1894 BIRCH, RICHARD ELWYN.
1889 BIRCH, WALTER DE HOGHTON.
1899 *BIRD, JOHN BOWYER.
1893 BLACKBOURN, HENRY.
1898 *BLACKSHAW, CHARLES.
1898 BLAKE, EDWIN HOLMES (*Special Sanitary Science Certificate*, 1900).
1898 *BLOUNT, EDWARD.
1898 BLUNT, MONTAGUE CECIL.
1893 BODY, ARTHUR.
1899 BOOKER, FRANK WILLIAM.
1895 BOOTH, GILBERT WILLIAM.
1891 BOULTING, FREDERICK EDWARD.
1899 BOWDEN, JOHN FRIENDSHIP (*Institution Prize*, 1891; *Crawter Prize*, 1899).
1892 BRACKETT, FREDERICK HENRY.

Members of the Institution who have Passed the Fellowship Examination—continued.

1899 *Brackett, William Newbegin.
1895 Bradley, James William.
1895 Bradshaw, Harry Greaves.
1893 Brady, Ralph Hollinshed.
1895 Breeds, Arthur Owen.
1900 *Bridgewater, Clement Joseph Bentley.
1898 Brighton, George Lawrence.
1894 Brinkworth, Robert Edwin.
1897 Brinsley, Herbert George William.
1896 Brooks, John McMullen.
1896 Brooks, Philip Fuller.
1893 Brown, Alexander Burnett.
1893 Brown, Arthur Macdonald (*Driver Prize*, 1889).
1894 Brown, George Turville.
1887 Buckland, Alfred Virgoe.
1893 Buckland, Sidney Crawford.
1900 *Burgess, Henry Herbert Philip.
1887 Burrows, Alfred John.
1896 Burton, Amos, Jun.
1891 Bushell, Henry.
1899 Butler, Albert Ernest.
1899 *Butler, Charles.

1898 Carnell, Sydney George.
1898 Carpmael, Harold.
1900 *Carr, Herbert Francis.
1895 *Carr, Thomas Edmund.
1898 Cartwright, Alfred Stott.
1892 Castle, Harold.
1898 Chamberlain, George Arthur Raddon.
1895 Chambers, Theodore Gervase (*Penfold Gold Medal*, 1895).
1900 *Chesterton, Frank Sidney.
1900 *Chichester, Richard Herbert.
1898 *Clarkson, William.
1894 Coales, Herbert George.
1893 Cobham, George William (*Special Prize*, 1890; *Crawter Prize*, 1890).
1900 *Cole, James Thomson.
1898 Collins Horace.
1895 Cooper, Alfred William.
1894 Cope, Henry James.
1899 *Cope, William George.
1892 Corderoy, Athelstane.
1898 Cotterell, Albert Player Isaac.
1899 Cowin, Norris Tynwald.
1900 *Cowper, William Shapland.
1897 Cox, Walter Theodore.
1899 Creswell, William Thomas.
1893 Crier, John Thomas.
1899 *Cronk, Charles Tylee.
1895 Cross, Arnold Charles Martin.
1898 Crowther, Keston Nelson.
1899 Culverhouse, Cecil Goldar Fearn.
1900 *Cutler, George Alfred.

1899 *Dangerfield, Thomas Samuel.
1897 *Daniel, Henry Wilkinson (*Institution Prize*, 1896).
1890 Darch, John.
1892 Davey, Henry Thomas.
1895 Davies, Cyril Froodvale (*Crawter Prize*, 1895).
1894 Davies, David Thomas.
1900 *Dawson, George Crosbie.
1886 Day, William, Jun.
1893 Debenham, Frank Bridge water.
1894 Debenham, Frederic Kersey.
1893 Debenham, Horace Bentley.
1890 Dendy, William Cooper (*Special Prize*, 1889).
1898 *Denton, William.
1885 Dickson, Thomas Arthur.
1896 Dinwiddy, Donald.
1891 Done, John James (*Driver Prize*, 1887).
1888 Drew, Henry Alban.

Members of the Institution who have Passed the Fellowship Examination—continued.

1892 Dudley, Edgar.
1900 *Dunlop, Dugdale Oakeley.

1891 Eagland, William Francis.
1895 Eason, Edward William (*Institution Prize*, 1893).
1897 Easter, William (*Driver Prize*, 1896; *Penfold Silver Medal*, 1896).
1894 Edmonds, John.
1896 Eggington, Denys.
1895 Ellis, Albert Edward.
1900 *Ellis, Arnold Robertson.
1889 Ellis, Francis, Jun.
1890 Ellis, Herbert Moates.
1890 Ellis, Ralph Staples.
1898 *Eve, Charles Gerald (*Bracketed Crawter Prize*, 1898).
1887 Eve Herbert Trustram.
1899 Eve, William Harold.
1899 *Everington, John.
1895 Eves, Francis George Bertram.
1890 Eves, William Lionel.

1898 Farmer, Hugh Cecil.
1895 Fenn, Andrew Thomas Cranage.
1895 Fields-Clarke, George Thomas.
1894 Finn, Fred.
1894 Finn, Herbert Archibald (*Special Prize*, 1891).
1894 Fitt, Harry Charles.
1899 Fletcher, Banister Flight.
1897 Fletcher Herbert Phillips.
1895 Ford, Solomon.
1897 *Foster, Edward Charles.
1890 Foster, Frank (*Special Sanitary Science Certificate*, 1892)
1894 Foster, James Herbert Furmedge.
1899 Fox, Frederick Russell.
1893 Franklin, Benjamin Belgrove
1897 Fraser, Thomas Smellie.
1894 Fraser, William.
1898 Fry, Joseph Harry.
1888 Furber, Percy Normam.
1898 *Furmedge, John Harris.

1899 Gardiner, Robert Strachan.
1894 Gardner, Gilbert.
1897 Garner, John Stanley.
1892 *Garrard, Arthur Norman.
1895 German, George, Jun. (*Driver Prize*, 1892).
1892 Giddy, Osman Horton.
1898 Glover, Henry Alexander.
1900 *Goadby, Howard
1900 *Goff, James Cauldfeild.
1899 Goldsmith, Douglas Fleet.
1900 *Goodman, Alfred.
1897 Goulding, Arthur.
1892 Green, Alexander Ernest.
1897 Green, Edmund Horace.
1897 Green, Frederick Algernon (*Penfold Gold Medal*, 1897).
1896 Gregson, George Ernest.
1896 Griffin Alfred.
1900 *Gripper, Joseph Edward.
1892 Grover, Arthur.
1895 Grover, Philip Gordon.
1899 Gunter, James.

1891 Hadley, Frank.
1894 Haigh, Thomas Frederick.
1897 Hall, John Herbert.
1891 Hall, William Timothy (*Institution Prize*, 1894).
1894 Hampton, George Frederick William.
1888 Hansell, Reginald Goddard (*Special Sanitary Science Certificate*, 1893).

Members of the Institution who have passed the Fellowship Examination—continued.

1897 Harrison, Charles.
1896 *Harrison, George John Robertson (*Special Prize*, 1894).
1899 Harrison, John Edward.
1890 Haslam, Dryland, Jun.
1886 Hasluck, Lancelot Gerald.
1892 Hayward, Frederick George.
1900 Hayward, Thos. William Alfred.
1891 Head, John George (*Crawter Prize*, 1891).
1900 *Healing, Oswald Judd.
1897 Heasler, Holland Charles.
1896 Hern, Samuel.
1895 Heward, Ernest James.
1891 Higgins George.
1900 *Hinks, Henry.
1889 Hodge, Leonard Percival.
1895 Holiday, Percy Cave.
1899 *Holl, Mackintosh Meleng.
1897 Hollis, Walter Dawson.
1897 Homan, Hubert Franklin.
1896 Hood, Walter Richard.
1900 *Hood, Thomas.
1895 Hooper, Cecil Henry.
1897 Hooper, Edgar Wilfred.
1900 *Hope, Arthur Ernest.
1883 Horne, William Edgar.
1899 Houghton, Thomas Marcus.

1897 Isted, Samuel Eveland.

1897 Jarman, William (*Institution Prize*, 1894).
1895 Jarman, Frank Wilmott.
1894 Jeffree, Sydney.
1897 Jenkin, Arthur Pearse.
1895 Jenkinson, John.
1898 Jenkinson, William Eric Leigh.
1897 Jenner, William.
1900 Jennings, Fitz-Laurence Percy Dudley.
1894 Johnson, Bernard Marr.
1884 Johnson, Henry.
1894 Johnston, Walter Henry
1900 *Johnston, Reginald.
1889 Jonas, Harry Marshall (*Institution Prize*, 1887).
1898 Jones, Ernest Joel.
1890 Jones, Frederick Herbert.
1886 Jones, Henry Arthur (*Special Sanitary Science Certificate*, 1892).
1900 *Jones, David Pugh.

1892 Kemp-Smith, James Frederick.
1899 *Kerr, John Murray.
1898 Kerruish, William Maltby.
1888 King, Alfred.
1897 *Kingsford, Percy Hamilton.
1900 *Kirby, Edmund Francis Joseph.
1900 *Kirk, John Wright.
1896 *Knight, George Edward.

1897 Lake, Cuthbert Joseph.
1896 Lakin-Smith, Ernest.
1889 Lambert, Godfrey Charles.
1898 *Lamprill, William Thomas.
1899 Lang, Charles Frederick Dashwood.
1895 Lancaster, John Roy.
1900 *Latham, Albert Tummins.
1893. *Lawley, Frederick William
1893 Leaning, Henry John.
1895 Leaning, William Arthur.
1894 Leather, George Herbert.
1900 *Leather, William Beaumont.
1897 *Lee, Edward Ernest Arthur.
1893 Lee, John Wilfrid.
1895 Leeder, Ernest Holtham.

Members of the Institution who have passed the Fellowship Examination—continued.

1899 *Lloyd, Donald.
1900 *Lomas, Albert Daniel.
1895 Longsdon, Ernest Morewood.
1897 Lucas, John Archibald.
1900 Luker, Dyneley.

1895 McCarthy, Henry Robert.
1893 Mellingfield, James Henry.
1895 MacNicoll, Douglas Henry.
1899 Marshall, Arthur George.
1891 Mann, Robert Bagshaw.
1897 Martin, Alfred John.
1895 Martin, Heber Gambling (*Institution Prize*, 1888).
1895 Martin, Samuel.
1892 Martin, Thomas (*Special Forestry Certificate*, 1893).
1888 Massie, Frank.
1895 Mathews, Louis Osler.
1900 *Matthews, Douglas Samuel.
1889 Maxwell, Francis William.
1898 Maxwell, Joseph Archibald.
1890 *Melrose, Frank (*Special Sanitary Science Certificate*, 1893).
1897 Mercer, Charles Edward.
1892 Merry, Arthur Walker (*Institution Prize*, 1890).
1894 Messenger, Henry.
1884 Michelmore, Alfred (*Special Forestry Certificate*, 1890).
1896 Miller, John Ezra.
1892 Mitchell, George Sharman.
1884 Mixer, Edward.
1885 Moore, Harold Edward.
1899 Morris, Arthur.
1894 Morris, Richard Percival.
1899 *Morris, William Henry.
1891 Mould, Graham Harley.
1892 Muller, John Joseph.

1900 *Mumby, Elvin Fowler.

1899 Nesbitt, John Oscar.
1894 Newman, Samuel Frank.
1898 Newton, Edwin Bennett Brierley.
1900 *Nockolds, Alfred George.
1895 *Nockolds, Martin Charles Hubert.
1895 Norman, James Noel.
1883 North, George Frederic.
1897 Nuttall, Herbert.

1894 Oakley, Christopher Percival.
1891 Oakley, John Hubert.
1900 *O'Brien, Donough Richard.
1892 Ogden, Michael Guy.
1899 Ogilvie, Robert Mathewson.
1899 *Oldnall, Roger William.
1898 Osenton, Charles.
1892 Osenton, George, Jun.

1896 Page, Stanley Hatch (*Special Sanitary Science Certificate*, 1900).
1895 Pain, George Lloyd.
1885 Pain, James.
1899 *Pain, William Henry.
1892 Palamountain, Joseph Wm.
1891 Parris, Charles John.
1896 Parry, Joseph William.
1887 Parry, Richard.
1900 *Parry, Richard Frederick.
1894 Partridge, Edward John (*Driver Prize*, 1890; *Penfold Gold Medal*, 1894; *and Crawter Prize*, 1894).
1898 Patch, Shirley Hutchings.
1886 Paull, Alan.
1897 Pearce, Fred. W.
1898 *Pearse, Octavius Burroughes

Members of the Institution who have Passed the Fellowship Examination—continued.

1896 Pearson, Harry John.
1895 Pearson, Howard.
1898 *Peebles, Philip.
1891 Perkins, Walter Frank (*Special Prize*, 1886).
1884 Peto, James Winder.
1897 Phillips, William.
1885 Pilditch, Philip Edward (*Special Sanitary Science Certificate*, 1890).
1900 *Pinder, Richmond
1900 *Pinegar, James Reginald (*Crawter Prize*, 1900).
1897 Pinney, Frederick Wyldbore Digby.
1894 Potter, Herbert George.
1895 Powell, Charles Reginald Evernden.
1896 Prall, Herbert Alexander.
1895 Prall, Herbert Edward.
1892 Preston, Samuel David.
1898 *Price, Capel, Hereward.
1894 Price, Richard Arnold.
1896 Pritchard, Herbert Alfred.
1891 Punchard, Frederick Burt.
1896 Purvis, Charles James.

1896 Raffety, Herbert William (*Special Prize*, 1892).
1899 *Reed, Richard George Gordon.
1897 Reffell, Charles Arthur.
1898 Reid, Arthur Fletcher.
1896 Renton, George.
1899 *Richardson, Arthur Bayliffe.
1898 *Richardson, James, Jun.
1892 Richardson, Oliver Archer (*Crawter Prize*, 1892).
1900 Ridley, Percy Edward.
1900 *Robbins, Walter Francis.
1894 Robins, Philip Seymour.
1892 Robinson, Henry Herbert.
1898 Robinson, Theodore Richard
1897 Rogers, Horace Mordaunt.
1884 Rolleston, William Gustavus Stanhope (*Institution Prize*, 1883).
1887 Roods, Alfred (*Driver Prize*, 1886).
1898 Rook, Joseph Taylor (*Special Prize*, 1896).
1898 Rowland, Joseph Samuel.
1889 Rundle, Edward Collins.
1898 *Russell, Cecil Herbert.

1889 Sadler, George William, Jun.
1900 *Sanday, William Henry.
1896 Sandford, Charles Sidney.
1891 Saunders, Charles Herbert.
1899 Saunders, Samuel Brown.
1892 Savill, Edwin.
1899 Scott, Archibald Lacy.
1900 Scott-Smith, Arthur Courtenay.
1900 *Scrivener, John Charles
1894 Scruby, William Thomas.
1899 Secker, John Eustace.
1899 Sedgwick, Alfred Sydney Edward.
1899 *Seel, Robert Harold.
1897 Sexton, George Alexander.
1898 Shearburn, Harry.
1899 *Sheldon, Harold.
1900 Shufflebotham, John Henry.
1883 Silcock, Thomas Ball.
1898 *Skingle, Alfred Charles.
1897 Skipper, Henry Herbert.
1898 Skrimshire, Samuel.
1899 *Skues, Charles Ayre Mackenzie.
1892 Slater, Charles Frederick.
1898 Sly, Joseph Townson.
1900 *Sly, William.
1897 *Smith, Charles Gordon.

Members of the Institution who have Passed the Fellowship Examination—continued.

1895 Smith, Frank Braybrooke.
1889 Smith, Frank William (*Driver Prize*, 1888).
1889 *Smith, George Henry.
1900 *Smith, John Ambrose.
1899 *Smith, Sydney Arthur (*Driver Prize*, 1897; *Penfold Silver Medal*, 1897; *Penfold Gold Medal*, 1899).
1884 Smith, William.
1900 *Southorn, Charles Herbert.
1896 Sowels, William Clowes.
1898 Standen, Arthur Carnegie.
1894 Stapledon, Ernest Allen.
1898 Stewart, Samuel Parr.
1900 *Stimson, Edward Frederick.
1899 *Stimson, Herbert Percy.
1898 Strouts, Lewis Herbert.
1899 *Sutton, Frederick Stanley.
1898 *Swanwick, Bruce.

1896 Tallent, Edwin James.
1897 *Tate, Joseph George.
1895 Taylor, Harry William.
1899 Taylor, Thos. William Harris.
1894 Tee, Samuel Clifford.
1894 Temple, Frederick Wilson.
1900 *Terry, Francis William
1898 Theakston, William Pease (*Bracketed Crawter Prize*, 1898).
1898 Theobald, John Meadows.
1900 *Thomas, Charles John Howell (*Driver Prize*, 1898; *Penfold Silver Medal*, 1898; *Penfold Gold Medal*, 1900).
1896 *Thompson, Roland O'Brien.
1895 Thring, Douglas Theodore.
1900 *Thurgood, Albert Edward.
1887 Tiffen, John Henry (*Institution Prize*, 1885).
1893 Tory, John Edward, Jun.
1898 Townend, William.
1885 Treadwell, Henry John (*Driver Prize*, 1883).
1900 *Tremlett, Walter William.
1893 Tuckett, Percival Fox.
1898 Tutt, Edwin Thomas.
1893 Tyler, James William.
1900 *Type, Marcus Oswald.

1883 Vernon Arthur.
1898 Vinten, Harold Bertram.

1897 *Walker, William Selves (*Special Prize*, 1895; *Crawter Prize*, 1897).
1897 Wallis, John David.
1899 *Waterfield, Horace Clare.
1900 *Watson, David Alexander.
1896 Watson, Herbert John (*Institution Prize*, 1895).
1895 Watson, James Bruce.
1894 Watson, John, Jun.
1892 Webster, Hugh Calthrop.
1900 *Wells, Frederic Beauchamp.
1895 Wells, William Henry.
1895 West, Charles Henry Edward.
1900 *West, Herbert James.
1898 Wheatley, Stephen Gladstane
1897 Wheeler, John Henry West.
1897 Whitaker, Ernest Victor
1896 Whittaker, John Dronsfield (*Penfold Silver Medal* 1894; *Driver Prize*, 1894; *Penfold Gold Medal*, 1896; *Crawter Prize*, 1896).
1897 *Whitton, Percy.
1899 Wigram, Reginald Spencer.

Members of the Institution who have Passed the Fellowship Examination—continued.

1896 *Wilde, Algernon Sidney.
1900 *Wilkinson, Percy Newton.
1896 Williams, Henry Cuthbert.
1894 Willis, Edward.
1899 *Willoughby, Charles Albert.
1899 Wilson, Frederick Robert
1898 Wilson, Lawrence Richard.
1896 Wonnacott, Ernest William Malpas.
1900 *Wontner-Smith, Percy.
1891 Wood, Charles Bruce.
1896 *Wood, Leslie Stuart (*Special Forestry Certificate*, 1900).
1899 Woodrow, Thomas John.
1895 Woods, Arthur George.
1900 *Wood-Martin, Henry Roger Bromhead.
1898 Woof, Robert Stephenson.
1895 Wyles, John Walter.

1892 Young, Harry Austin Lindsay.
1899 Young, Thomas John.

Members of the Institution who have Passed the Professional Associateship Examination. †

† *This list does not include the names of those who have passed the Examination but have not yet joined the Institution.*

1891 Abrams, Benjamin Percy.
1894 Adams, Gerald Jas. Frederick
1895 Adams, Herbert.
1897 Addie, John Heathcote.
1896 Addiscott, Henry Hugh.
1887 Adkin, Benaiah Whitley.
1899 Alderson, Rowland William.
1893 Allen, John Parnell.
1895 Allen, Percy.
1896 Allpress, Horace Edward.
1898 Allsebrook, Arthur.
1896 Ambler, Sydney Wood.
1892 Amos, Frank.
1895 Anderson, Thomas John.
1898 Andrews, Arthur George.
1898 Andrews, Herbert George.
1896 Andrews, Stephen Hampton.
1898 Angel, Francis Houghton.
1887 Anscombe, Ernest.
1897 Appleby, Frank Sefton.
1899 Armstrong, John William Wilson.
1890 Armytage, Francis Reg.
1896 Arnold, Alan.
1896 Arno, Samuel.
1885 Arnott, John (*Special Prize*, 1885).
1894 Aris, John Whitton.
1896 Ashenden, Leonard Thomas.
1889 Assiter, Harry G. (*Special Sanitary Science Cer.*, 1892).
1894 Astley, Reginald Basil.
1898 Attlee, Edward Guy.
1887 Austin, Richard, Jun.
1890 Aylen, Cecil Hugh.
1897 Baddeley, Bernard Beresfd.
1893 Bailey, Louis Hewitt.
1885 Baker, Cecil Cautley.
1898 Baker, Geoffrey Clinton.
1888 Ball, James Benjamin.
1889 Ball, William Alfred.
1890 Bancroft, Frederick Herbert
1895 Banks, Frederick Stuart Angus.
1893 Bannister, Tom Harrison Caffyn.
1890 Barclay, Thomas.
1899 Barker, Frederick George.
1892 Barker, Geoffry Lionel.
1889 Barnes, George Frederick.
1898 Barns, Stephen Allen.
1884 Barratt, Harry.
1898 Barratt, Leigh.
1898 Baverstock, Harold Bridge.
1899 Baylis, Alfred William.
1896 Beach, Archibald William Hicks.
1890 Beadel, Maurice Frederick.
1885 Beard, Edwin Thomas.
1891 Beasley, John Arthur Llewellyn (*Driver Prize*, 1891).
1883 Bedells, Charles Herbert.

Members who have Passed the Professional Associateship Examination—continued.

1898 Bedwell, Ernest Charles.
1894 Beken, George, Jun.
1888 Belcher, Edward John.
1894 Bell, Herbert Owen.
1889 Bellingham, Archibald Turner.
1895 Bentley, Harold Edwin.
1898 Berry, Charles Windsor.
1898 Betenson, Frederic Roger.
1898 Bettridge, John Charles Lebon.
1892 Beven, Septimus.
1898 Bibbey, Thomas.
1897 Bickford, Joseph Grant (*Special Prize*, 1897.)
1893 Bidwell, John Evans.
1895 Bidwell, Philip Shelford.
1897 Bigg, Lionel Thursfield.
1895 Birch, Francis Julian Laurence.
1893 Birch, Richard Elwyn.
1884 Birch, Walter de Hoghton.
1897 Bird, John Bowyer.
1886 Birkett, Tom.
1897 Blackshaw, Charles.
1897 Blake, Edwin Holmes.
1894 Blount, Edward.
1885 Blundell, Harry.
1896 Blunt, Montague Cecil.
1898 Blyth, George Alfred.
1896 Boden, Maurice.
1893 Bodger, Percy Morris.
1890 Body, Arthur,
1895 Boord, Walter Bertram.
1899 Booth, Ernest Witton.
1887 Booth, Gilbert William.
1896 Bösher, Victor Evans.
1890 Boulting, Frederick Edward.
1886 Bousfield, Edwin Vaughan Davenport.
1891 Bowden, Ernest Newton.
1897 Bowden, Harry
1891 Bowden, John Friendship.
1888 Bower, Arthur Wentworth Chivers.
1890 Brackett, Frederick Henry.
1897 Brackett, William Newbegin.
1894 Bradley, James William.
1899 Bradshaw, Arthur George (*Special Prize*, 1899).
1896 Bradshaw, Arthur Stanley.
1893 Bradshaw, Harry Greaves.
1895 Bradwell, Gervase Hubbart.
1888 Brady, Ralph Hollinshed.
1899 Brand, Edmund.
1888 Brevetor, Thomas, Jun.
1889 Bridgford, Leo Appleton.
1899 Bridgewater, Clement Joseph Bentley.
1886 Briggs, John.
1896 Brighton, George Lawrence.
1892 Brinkworth, Robert Edwin.
1894 Brinsley, Herbert George William.
1899 Brooker, Frederick George.
1895 Brooks, John McMullen.
1895 Brooks, Philip Fuller.
1899 Brooks, William Nathaniel.
1891 Brown, Alexander Burnett.
1898 Brown, Arthur Allen.
1897 Brown, Arthur Frederick.
1889 Brown, Arthur Macdonald.
1896 Brown, Frederick.
1892 Brown, George Turville.
1898 Brown, Thomas, Jun.
1887 Brown, William Edward.
1893 Brown, William Lobin Trant.
1894 Bruce, Alexander David.
1899 Bruton, Basil Vassar.
1885 Buckland, Alfred Virgoe.
1891 Buckland, Sidney Crawford.
1888 Bulbeck, George.
1892 Burder, Reginald Edward Campbell.
1897 Burgess, Henry Herbert Philip.

Members who have Passed the Professional Associateship Examination—continued.

1898 Burroughes, Charles Fitzpatrick.
1886 Burrows, Alfred John.
1897 Burrows, Frank Herbert.
1898 Burtenshaw, Albert King.
1895 Burton, Amos.
1898 Burton, Reginald Robert.
1887 Bushell, Henry.
1887 Buss, Fleetwood George William.
1898 Butcher, Thomas Ewen.
1894 Butler, Albert Ernest.
1897 Butler, Charles.
1895 Butler, Richard Pierce.
1899 Buttenshaw, Ernest Newth.

1894 Cambridge, William James.
1898 Campbell, Charles Howard.
1897 Cargill, Campbell Featherston.
1898 Carr, Herbert Francis.
1891 Carr, Thomas Edmund.
1894 Carnell, Sydney George.
1897 Carpmael, Harold.
1887 Carter, Alfred Presley.
1895 Cartwright, Alfred Stott.
1897 Cassin, Charles Langa.
1891 Castle, Harold.
1896 Cathcart, Archibald Hamilton.
1898 Chadwick, Spencer.
1888 Chalcraft, Henry Terrell.
1894 Chambers, Theodore Gervase
1893 Champion, George Ernest.
1896 Chamberlain, Arthur George Raddon.
1895 Chart, Christopher.
1898 Chattell, Francis Loriot.
1888 Cheney, Edwin John.
1898 Chesterton, Frank Sidney.
1899 Chichester, Richard Herbert
1892 Child, Charles.
1888 Child, Edmund Herbert.
1897 Chipp, George.
1899 Church, Jeoffrey Redmore.
1898 Clark, Nathaniel, Jun.
1897 Clarke, Charles Wentworth.
1899 Clarke, Leonard Eustace.
1897 Clarkson, William.
1885 Coales, Herbert George.
1897 Cobbe, Henry Alexander.
1890 Cobham, George William.
1889 Colbourn, Henry James (*Special Forestry Certificate*, 1890)
1898 Cole, Francis Joseph.
1899 Cole, George Harry.
1899 Cole, James Thomson.
1887 Collingham, J. Cyril Lees.
1896 Collins, Horace.
1885 Collins, Marcus E.
1888 Collyer, Daniel William,
1898 Constable, John.
1899 Cook, Edward Arthur.
1897 Cooke, Frederick Roper.
1892 Cooke, Lionel.
1893 Cooper, Alfred William.
1890 Cope, Henry James.
1897 Cope, William George.
1891 Corderoy, Athelstane.
1895 Corfield, Thomas.
1896 Cory, Edward John.
1897 Councell, Thomas James.
1894 Cowell, Herbert Lee.
1896 Cowell, Wilfred Lee.
1896 Cowin, Norris Tynwald.
1895 Cowper, William Shapland.
1893 Cox, Reginald John.
1896 Cox, Walter Theodore.
1899 Cragg, George Edwin.
1899 Crampton, Arthur Wesley.
1883 Crawter, John, Jun.
1894 Cregeen, Hugh Stowell, Jun.
1897 Creswell, William Thomas.
1891 Crier, John Thomas.

Members who have Passed the Professional Associateship Examination—continued.

1899 Croft, George Herbert.
1897 Cronk, Charles Tylee.
1899 Crook, Hollis Augustus.
1894 Crosier, Charles.
1886 Crosland, Walter.
1891 Cross, Arnold Charles Martin.
1888 Crouch, James Leonard.
1895 Crowther, Keston Nelson.
1896 Crozier, George Francis.
1898 Culverhouse, Cecil Goldar Fearn.
1897 Cushen, Charles Osmon.
1899 Cutler, George Alfred.

1897 Dadd, Charles John Thomas.
1896 Dafforn, George Bertie.
1898 Dancaster, Arthur.
1897 Dangerfield, Thomas Samuel.
1896 Daniel, Henry Wilkinson.
1899 Daniel, Herbert Hood.
1899 Dann, Henry, Jun.
1893 Darbishire, Harry Vernon.
1899 Darch, John.
1888 Davey, Henry Thomas.
1893 David, George Willoughby.
1897 Davidson, Richard Bruce.
1893 Davies, Cyril Froodvale.
1892 Davies, David Thomas.
1899 Davies, John William Satterley Humphreys.
1891 Davis, Neville Brookes.
1896 Davis, William Henry Harold.
1898 Dawson, George Crosbie.
1883 Day, William, Jun.
1892 Debenham, Frank Bridgewater.
1893 Debenham, Frederic Kersey.
1891 Debenham, Horace Bentley.
1893 Delamare, Frank.
1899 Delves, Robert Harvey Addington.
1889 Dendy, William Cooper.
1897 Denton, William.
1899 Dickinson, James Murgatroyd.
1884 Dickson, Thomas Arthur.
1894 Dinwiddy, Donald.
1888 Dixon, Francis Edward (*Special Prize*, 1888).
1899 Dodd, Eustace Cyril Theodore
1887 Done, John James.
1897 Douglas, Bernard Moxon.
1896 Draper, Edwin Maxwell.
1886 Drew, Henry Alban.
1895 Drew, Walter Hubert.
1892 Druce, Edric.
1889 Dudley, Edgar.
1899 Dunlop, Dugdale Oakeley.
1897 Dunt, John Harlow.
1898 Dyer, Frederick Burfield.

1888 Eagland, William Francis.
1893 Eason, Edward William.
1886 Easter, William.
1893 Easton, Walter John (*Driver Prize*, 1893).
1893 Edmonds, John.
1895 Eggington, Denys.
1893 Elgar, Walter Robinson.
1890 Elgood, Frank Minshull.
1897 Elliott, Arnold.
1892 Ellis, Albert Edward.
1897 Ellis, Alfred Cave.
1898 Ellis, Arnold Robertson.
1890 Ellis, Francis, Jun.
1888 Ellis, Herbert Moates.
1887 Ellis, Ralph Staples.
1896 Elphick, George Pelham.
1899 Ethelston, Hugh Wicksted.
1895 Evans, Ernest Sydney.
1895 Evans, Percival Baker.

Members who have Passed the Professional Associateship Examination—continued.

1894 Eve, Charles Gerald.
1887 Eve, Herbert Trustram.
1892 Evered, Gilliebrand Edwin.
1892 Everett, Arthur Sherman.
1894 Everington, John.
1894 Eves FrancisGeorgeBertram
1888 Eves, William Lionel.

1894 Fagg, Edwin William.
1896 Fair, Arthur Edward.
1895 Farmer, Hugh Cecil.
1897 Farnham, William Augustus.
1898 Field, Charles Roland.
1894 Finch, Clement Robert.
1892 Finn, Fred.
1891 Finn, Herbert Archibald.
1896 Fisher, Robert.
1893 Fitt, Harry Charles.
1895 Fleetwood, George Spalding.
1893 Fletcher, Herbert Phillips.
1892 Flight, Alfred.
1892 Ford, Solomon.
1890 Forrest, William.
1889 Forster, Walter Hill.
1895 Foster, Edward Charles.
1888 Foster Frank.
1898 Foster, Henry Helm.
1892 Foster, James Herbert Furmedge.
1898 Foulkes, Noel Macintyre.
1899 Fowler, Alfred Charles Stanley.
1892 Fox, Charles Edward.
1894 Fox, Frederick Russell.
1891 Franklin, Benjamin Belgrove
1895 Fraser, Thomas Smellie.
1899 Freeman, George (*Driver Prize*, 1899).
1890 Fraser, William.
1895 Funnell, Horace Frederick.
1887 Furber, Percy Norman.
1897 Furmedge, John Harris.

1896 Gale, Arthur Witherby.
1889 Galsworthy, Vincent Somers
1898 Gardiner, Robert Strachan.
1892 Gardner, Gilbert.
1895 Garner, John Stanley.
1890 Garrard, Arthur Norman.
1894 Garrett, Arthur Berry.
1899 Gate, Henry Arthur Armytage (*Institution Prize*, 1899).
1897 Gayer, Alfred Edward.
1899 Genge, William Pope, Jun.
1892 German, George, Jun.
1896 Gethin, Randolph George.
1885 Gibbon William Jacomb (*Driver Prize*, 1885).
1889 Giddy, Osman Horton.
1894 Gilbert, John Sainsbury.
1894 Glover, Henry Alexander.
1896 Goadby, Howard.
1898 Goadby, Joseph Stubbins.
1885 Godfrey, Robert.
1899 Goff, James Caufield.
1897 Goldsmith, Douglas Fleet.
1886 Golightly, Charles Hugh.
1899 Goodman, Alfred.
1896 Goulding, Arthur.
1889 Grant, Joseph.
1897 Gray, Horace Norman.
1893 Gray, Percy William.
1890 Green, Alexander Ernest.
1896 Green, Arthur Edward.
1891 Green, Edmund Horace.
1893 Green, Frederick Algernon.
1887 Green, Thomas John.
1886 Green, Thomas Joseph.
1896 Greenfield, Frederick James
1884 Greenop, Edward.
1897 Greenwood, Ernest.
1895 Gregson, George Ernest.
1894 Griffin, Alfred.
1892 Griggs, Henry Jenner.

Members who have Passed the Professional Associateship Examination—continued.

1888 Grimes, Ralph Fearon.
1898 Gripper, Joseph Edward.
1889 Grover, Arthur.
1894 Grover, Philip Gordon.
1888 Gunter, James.
1899 Gurney, Ronald George.

1889 Hadley, Frank.
1892 Haigh, Thomas Frederick.
1884 Halkyard, William Redford.
1895 Hall, Frederick Walter.
1897 Hall, Henry Alexander Thomas.
1896 Hall, John Herbert.
1899 Hall, John Sebastian.
1895 Hall, Thomas Biddle.
1884 Hall, William Timothy.
1890 Hampton, George Frederick William.
1895 Hankey, Gilbert Lionel.
1892 Hankinson, Francis Henry.
1887 Harding, Frederick Allcroft.
1887 Hansell, Reginald Goddard.
1894 Hardiman, Harry.
1895 Hardwick, Arthur Jessop.
1895 Harrison, Arthur.
1895 Harrison, Cyril Henry Gilmore.
1894 Harrison, George John Robertson.
1897 Harrison, Henry Beauchamp.
1897 Harrison, John Edward.
1899 Hartley, Tom Percy.
1895 Harvey, Frederick Charles.
1888 Haskins, William Albion.
1889 Haslam, Dryland, Jun.
1883 Hasluck, Lancelot Gerald.
1898 Hassett, Reginald Charles.
1893 Hawes, Frederick Kirk.
1898 Hawkins, John Frederick.
1890 Hayward, Frederick George.
1897 Hayward, T. Wm. Alfred.
1895 Haywood, Samuel Spencer.
1889 Head, John George.
1897 Head, William Alfred.
1898 Heal, Harold.
1898 Healing, Oswald Judd.
1894 Heasler, Holland Charles.
1898 Heath, Henry Cubitt.
1885 Hebblethwaite, Charles Henry.
1894 Heckford, Harley.
1892 Hellicar, George Thomas (*Special Sanitary Science Certificate*, 1893).
1896 Hemphill, Charles George Cathcart.
1886 Henderson, Richard.
1894 Heward, Ernest James.
1893 Hewett, George Thompson.
1895 Hicks, William Rooke.
1889 Higgins, George.
1886 Hill, Alfred.
1885 Hilliard, George Edward.
1899 Hinchsliff, Edward Robert.
1899 Hindmarsh, Michael Anselm.
1898 Hinks, Henry.
1888 Hodge, Leonard Percival.
1898 Hodges, Cecil Stuart.
1890 Hodgkinson, James Henry.
1896 Hodgson, Arch. Sanford.
1897 Holbrow, Herbert Oliver.
1893 Holiday, Percy Cave.
1898 Holl, Mackintosh Meleng.
1891 Hollis, Herbert.
1891 Hollis, Ralph.
1894 Holmes, John Edward.
1888 Homan, Hubert Franklin.
1896 Homfray, Herbert Richards.
1896 Hood, Thomas.
1899 Hooley, Arthur John.
1887 Hooper, Cecil Henry.
1895 Hooper, Edgar Wilfred.
1896 Hooper, Gerald Huntley.
1899 Hope, Arthur Ernest.
1895 Horton, William Phelps.
1899 Howgrave-Graham, Alan Herbert.

Members who have Passed the Professional Associateship Examination—continued.

1898 Howgrave-Graham, George Ernest.
1897 Howland, Arthur Frank.
1899 Howland, George.
1898 Hudson, Albert William.
1898 Humphry, Martin George.
1899 Hunt, George Whitaker.
1899 Hurlbutt, Percival.
1897 Hutchins, Richard.

1890 Innes, Gilbert Plantagenet Mitchell.
1893 Irvine, Archibald Wyndham.

1894 Jackson, Alfred Ernest.
1894 Jackson, Edward Henry.
1895 Jackson, Leonard Labrey.
1898 Jackson, Robert Ewan.
1894 Jarmain, William.
1892 Jarmain, Frank Wilmot.
1892 Jarrett, Thomas William.
1893 Jeffree, Sydney.
1895 Jenkin, Arthur Pearse.
1896 Jenkins, Richard James.
1893 Jenkinson, John.
1896 Jenkinson, William Eric Leigh.
1894 Jenner, William.
1896 Jennings, Fitz-Lawrence Percival Dudley.
1891 Jessett, Charles Edward Vernon.
1895 John, Henry Bell.
1892 Johnson, Bernard Marr.
1897 Johnson, Harry Labron.
1883 Johnson, Henry.
1898 Johnston, Reginald.
1887 Johnston, Walter Henry.
1887 Jonas, Harry Marshall.
1886 Jonas, Samuel Marshall.
1894 Jones, David Pugh.
1896 Jones, Ernest Joel.
1888 Jones, Frederick Herbert.
1883 Jones, Henry Arthur.
1898 Jones, John Arthur.
1898 Jones, Percy Everley.
1899 Jones, Philip Vivian.
1891 Joyce, Harry Ward.
1885 Jull, William Vincent.

1890 Kay, Walter Robert.
1895 Keay, William.
1894 Keep, William Henry.
1899 Kelly, George William Calver.
1890 Kemp-Smith, James Frederick
1895 Kemsley, William Hugh.
1893 Kennett, Charles Arthur.
1897 Kerr, John Murray (*Institution Prize*, 1897).
1896 Key, Astley Cooper.
1897 Kibblewhite, Henry James Treleaven.
1894 Kieser, William Henry Gustav.
1894 Killick, Anthony Edward.
1898 Kincaid, Herbert Edward.
1887 King, Alfred.
1893 King, Walter Nike.
1886 King, William Isaac.
1896 Kingsford, Percy Hamilton.
1896 Kirby, Edmund Francis Joseph
1895 Kirk, John Wright.
1897 Knatchbull, Wyndham Persse
1892 Knight, George Edward.
1899 Knowles, George Potter.

1899 Laird, Ninian P.
1895 Lake, Cuthbert Joseph.
1890 Lake, Vivian Davey.
1895 Lakin-Smith, Ernest.
1888 Lambert, Godfrey Charles.

Members who have Passed the Professional Associateship Examination—continued.

1899 Lampard, Sydney Martin.
1895 Lamprill, William Thomas.
1893 Lancaster, John Roy.
1898 Lang, Charles Frederick Dashwood.
1885 Lansdown, George Arthur.
1890 Larkin, Richard Webster.
1899 Latham, Albert Tummons.
1895 Laumann, Montgomery Patrick John.
1899 Laurence, Walter Bernard.
1891 Lawley, Frederick William.
1898 Leake, Robert.
1896 Leane, Walter Burditt.
1890 Leaning, Henry John
1894 Leaning, William Arthur.
1897 Leather, William Beaumont.
1895 Lee, Ernest Edward Arthur.
1896 Lee, Francis Blacklock.
1896 Lee, Henry.
1886 Lee, John Wilfrid.
1896 Leese, Vernon Francis.
1899 Lemmoin-Cannon, Henry.
1890 Lewis, Arthur Llewelyn.
1898 Lewis, John.
1899 Lickis, Leonard.
1894 Lightfoot, Francis Prideaux
1892 Little, Henry.
1899 Little, Hudson.
1897 Lofthouse, Albert Wilson.
1898 Lloyd, Donald (*Institution Prize*, 1898).
1899 Lomas, Albert Daniel.
1897 Lomax, Ernest George.
1891 Longsdon, Edward Morewood
1895 Lovegrove, Charles Grisham
1886 Lowe, Charles Robert.
1892 Lucas, John Archibald.
1895 Luck, George Edward.
1899 Luke, John, Jun.
1899 Luker, Dyneley.
1899 Lumley, Edward Adrian.
1898 Lumley, Frederick Robert.
1899 Lynes, Humphrey Dod.
1894 Lyons, Edward Colvill.

1894 McCarthy, Henry Robert
1893 Macer, Alfred Thomas.
1897 Mackenzie, Hector John Maxwell.
1899 Mager, Sydney.
1896 Mallinson, Charles Herbert.
1893 Mann, Frederick Charles Thomas.
1888 Mann, Robert Bagshaw.
1897 Marchant, Robert Charles.
1898 Marcus, William Mortimer.
1893 Marriott, Cecil Wynn.
1896 Marshall, Arthur George.
1896 Martin, Alexander William.
1893 Martin, Alfred John (*Special Prize*, 1893).
1888 Martin, Heber Gamblin.
1893 Martin, Samuel.
1888 Martin, Thomas.
1889 Mason, Charles William Hayley.
1885 Massie, Frank.
1893 Mathews, Lewis Osler.
1899 Matthews, Douglas Samuel.
1892 Maughan, John (*Special Forestry Certificate*, 1893).
1886 Maxwell, Francis William.
1894 May, William Charles.
1897 Mayne, Charles Millard.
1899 Meaby, Thomas James
1898 Meacher, Edward Ernest.
1898 Meacher, Sydney George.
1892 Mellenfield, James Henry.
1893 Mellor, James Frederick.
1887 Melrose, Frank.
1895 Menmuir, Robert William.
1892 Menzies, Robert.
1894 Mercer, Charles Edward.

Members who have Passed the Professional Associateship Examination—continued.

1899 Meredith, Percy William.
1899 Merrick, Frederick Walter
1890 Merry, Arthur Walker.
1896 Meyer, Horace Leycester.
1898 Milbourne, John Seymour.
1894 Miller, Frederick William.
1892 Miller, George Frederick.
1891 Mitchell, George Sharman.
1894 Mitchell, Lewis.
1897 Mitcheson, Harry.
1884 Mixer, Edward.
1899 Moat, Ernest William.
1896 Moeran, Archibald Edward.
1897 Molyneux, Frank Eustace.
1890 Molyneux, Herbert Ernest.
1893 Monson, Henry John.
1883 Moore, Harold Edward.
1896 Moore, Hugh Armytage.
1898 Morris, Arthur.
1892 Morris, Richard Percival.
1894 Morris, William Henry.
1892 Morrish, Hugh Kenneth.
1893 Morrison, Daniel.
1893 Morrison, Gerald Donald.
1890 Mould, Graham Harley.
1883 Moyes, John Helenus.
1889 Muir, James (*Institution Prize*, 1889).
1891 Muller, John Joseph.
1898 Mullett, Henry Thomas.
1899 Mumby, Elvin Fowler.

1898 Nesbitt, John Oscar.
1894 Neubronner, Harry Alfred.
1899 Newman, Henry Arthur.
1892 Newman, Samuel Frank.
1896 Newton, Edwin Bennett Brierley.
1894 Nicholls, Edward Alfred.
1888 Nicholson, Ebenezer.
1898 Nicholson, Guy Murray.
1896 Noble, Edmund James.
1890 Nockolds, Alfred George.
1888 Nockolds, Martin Charles Hubert.
1893 Norman, James Noel.
1895 Nuttall, Herbert.
1898 Nutter, John.

1891 Oakley, Christopher Percival.
1890 Oakley, John Hubert.
1899 O'Brien, Donough Richard.
1890 Ogden, Michael Guy.
1897 Ogilvie, Robert Mathewson.
1896 Oldnall, Roger William.
1898 Orchard, Sidney Samuel.
1898 Orwin, Charles Stewart.
1896 Osbourn, Edward.
1896 Osenton, Charles.
1890 Osenton, George, Jun.
1892 Ouvry, Peter Arnold.
1892 Ovendon, Charles.

1894 Page, Stanley Hatch.
1897 Paice, William, Jun.
1893 Pain, George Lloyd.
1883 Pain, James.
1894 Pain, William Henry.
1888 Palamountain, Joseph William.
1891 Palmer, William Edward King.
1895 Parks, Walter.
1897 Parnacott, Arthur Charles.
1889 Parris, Charles John.
1899 Parry, Herbert Mostyn.
1887 Parry, Richard.
1894 Parry, Richard Frederick.
1890 Partridge, Edward John.
1896 Patch, Shirley Hutchins.
1895 Paul, John William.

Members who have Passed the Professional Associateship Examination—continued.

1883 Paull, Alan.
1896 Pearce, Charles Frederick.
1898 Pearce, Dudley, Francis.
1898 Pearce, Francis Arthur.
1893 Pearce, Fred. W.
1896 Pearse, Octavius Burroughes
1895 Pearson, Harry John.
1893 Pearson, Howard.
1898 Pease, Charles Edward.
1893 Pegge, John Thomas.
1897 Peebles, Philip.
1897 Peppercorn, Henry McArthur.
1896 Peppercorn, John Arthur.
1889 Perkins, Joseph.
1886 Perkins, Walter Frank.
1885 Perks, Sydney.
1899 Petch, John Stonehouse.
1894 Phillips, Francis John.
1894 Phillips, William.
1887 Phillips, William Dearlove (*Special Prize*, 1887).
1886 Physick, Walter Frederick (*Institution Prize*, 1886).
1895 Piercy, Frederic Onslow.
1883 Pilditch, Philip Edward.
1890 Pinder, Richmond.
1897 Pineger, James Reginald.
1897 Pinfold, Francis Arthur.
1896 Pinney, Frederick Wyldbore Digby.
1889 Pochin, Thomas Clement.
1891 Poggio, Eloi John.
1890 Potter, Herbert George.
1899 Potter, Shirley Herbert.
1894 Powell, Charles Reginald Evernden.
1892 Prall, Herbert Alexander.
1890 Prall, Herbert Edward.
1886 Prater, Thomas Herbert.
1899 Pratt, Frank Percy.
1888 Preston, Samuel David.
1897 Price, Capel Hereward.
1892 Price, Richard Arnold.
1898 Priestman, Alfred Tuke.
1894 Pritchard, Herbert Alfred.
1899 Protheroe, Alfred Ernest.
1895 Protheroe, William Sudbury
1889 Puckridge, Percival Martin.
1888 Punchard, Frederick Burt.
1895 Purvis, Charles James.
1895 Pye, George Henry.
1896 Pyle, Benjamin Thomas Rice.

1892 Raffety, Herbert William.
1885 Rand, John.
1899 Ransom, Thomas Reginald.
1898 Rawston, Charles Oliver.
1894 Read, Walter Herbert.
1898 Redfern, Charles Fredk.
1898 Reed, Richard George Gordon (*Special Prize*, 1898).
1899 Reeve, Douglas William.
1896 Reffell, Charles Arthur.
1896 Richardson, Arthur Bayliffe
1899 Richardson, Ernest Edward.
1896 Richardson, James, Jun.
1891 Richardson, Oliver Arthur.
1896 Rickards, Robert Hillier Traherne Anson.
1899 Riddett, Maurice Charles.
1897 Ridley, Percy Edward.
1896 Rivers, Charles Edwin.
1898 Robbins, Walter Francis.
1894 Roberts, Joseph Wm. George.
1898 Robertson, Henry Charles.
1891 Robins, Philip Seymour.
1887 Robinson, Alfred Whitmore.
1891 Robinson, Henry Herbert.
1896 Robinson, John Brooke Wood.
1897 Robinson, Ralph Eteson.
1897 Robinson, Theodore Richard.
1896 Rogers, Horace Mordaunt.
1898 Rogers, Percy Willben.

Members who have Passed the Professional Associateship Examination—continued.

1890 Rogers, Thomas George.
1883 Rolleston, William Gustavus Stanhope.
1886 Roods, Alfred.
1896 Rook, Joseph Taylor.
1888 Roper, John Simpson.
1899 Rowlandson, Samuel Messiter.
1889 Rowley, William Taylor.
1886 Ruddle, Frank J.
1883 Rundle, Edward Collins.
1896 Russell, Cecil Herbert.
1899 Rutter, Arthur Lionel.

1884 Sadler, George William, Jun.
1897 St. Aubyn, Belville Molesworth.
1894 Saise, Alfred John.
1893 Saker, Sydney.
1893 Sale, Arthur Reed.
1897 Salt, Harold Crossley.
1887 Salt, Reginald Nowell.
1889 Sampson, William.
1899 Sanday, William Henry.
1899 Sandell, Stanley Lunau.
1895 Sandford, Charles Sidney.
1883 Satchell, Charles (*Special Prize*, 1883).
1889 Satchell, Herbert Arnold.
1889 Saunders, Charles Herbert.
1890 Savill, Edwin.
1894 Sawyer, John Ashton.
1896 Scoble, Herbert Thomas.
1894 Scorer, Alfred George.
1894 Scott, Archibald Lacy.
1892 Scott, Thomas.
1895 Scrivener, John Charles.
1898 Searle, Sydney.
1896 Secker, John Eustace.
1893 Seddon, George Farquharson.
1897 Sedgwick, Alfred Sidney Edward.
1891 Sedgwick, Rupert William.
1897 Seel, Robert Harold.
1889 Selby, Frank.
1884 Selby, John Basely (*Bracketted Special Prize*, 1884).
1896 Sexton, George Alexander
1887 Shaw, Arthur.
1897 Shearburn, Harry.
1897 Shearer, James Hughan.
1898 Sheldon, Harold.
1896 Shorney, Arthur Shepherd.
1895 Shufflebotham, John Henry.
1899 Simpson, John Henry.
1897 Simpson, Leslie Shepherd.
1894 Skeat, Arthur Percival.
1895 Skingle, Alfred Charles.
1892 Skipper, Henry Herbert.
1894 Skrimshire, Samuel.
1896 Skues, Charles Ayre Mackenzie.
1890 Slater, Charles Frederick.
1893 Sly, Joseph Townson.
1896 Sly, William.
1894 Smith, Alexander George.
1896 Smith, Arthur Plumbe.
1895 Smith, Charles Gordon.
1899 Smith, Douglas.
1893 Smith, Frank Braybrooke.
1888 Smith, Frank William.
1898 Smith, Frederick.
1898 Smith, George Henry.
1890 Smith, James.
1899 Smith, John Ambrose.
1897 Smith, Sydney Arthur.
1895 Smithells, Edwin.
1890 Snailum, Walter Wadman.
1897 Snow, Henry Cyprian.
1897 Southcombe, John Charles.
1895 Southorn, Charles Herbert.
1891 Soutter, Ernest.

Members who have Passed the Professional Associateship Examination—continued.

1893 Sowels, William Clowes.
1896 Sparrow, William Hugh.
1898 Speakman, John McClure.
1890 Spelman, William Wilton Rix.
1897 Stacey, Frederick Charles Webster.
1889 Stainton, Francis Charles.
1893 Staley, Albert Henry.
1898 Stallard, Harrold Orlando.
1895 Standen, Arthur Carnegie.
1897 Stanford, George.
1898 Stanton, Frederick William Schultheiss.
1893 Stapledon, Ernest Allen.
1899 Stewart, George Pakenham.
1899 Stimson, Edward Frederick.
1897 Stimson, Herbert Percy.
1897 Stokes, Hugh Charles.
1897 Stoneham, Edward Russell.
1896 Straker, Howard.
1894 Strouts, Lewis Herbert.
1896 Stubbing, Richard Webb.
1888 Stuckć, William Henry.
1894 Stupart, Charles Walter.
1884 Sturge, Theodore.
1885 Sturgess, John Moore.
1889 Sturley, Arthur Dyson.
1890 Summerfield, Joseph Charles.
1899 Sutcliffe, James Henry.
1898 Sutton, Frederick Stanley.
1898 Swan, Harrold.
1897 Swanwick, Bruce.
1887 Swetenham, Henry.

1899 Tait, Frank Vincent.
1894 Tallent, Edwin James.
1896 Tate, Joseph George.
1889 Taylor, Harry William.
1896 Taylor, John Francis White.
1893 Tee, Samuel Clifford.
1891 Temple, Frederick Wilson.
1899 Terry, Francis William.
1899 Terry, Frank Treacher.
1894 Tewson, Leonard.
1893 Theakston, William Pease.
1896 Theobald, John Medows.
1898 Thomas, Charles John Howell.
1892 Thomas, Edward Morgan Dawson.
1899 Thomas, George.
1894 Thomas, Illtyd.
1898 Thomas, William James Edgar.
1894 Thompson, Claude William George Hugh.
1893 Thompson, Frederic Hubert.
1897 Thompson, Harold Stuart.
1894 Thompson, Joseph Atherden.
1894 Thompson, Roland O'Brien.
1894 Thring, Douglas Theodore.
1891 Thurgood, Albert Edward.
1899 Thurgood, Leonard Fielder.
1885 Tiffen, John Henry.
1899 Tighe, Arthur.
1888 Tilly, Hubert Douglas.
1892 Tory, John Edward, Jun.
1896 Town, Henry Annandale.
1894 Townend, William.
1890 Townsend, George James.
1883 Treadwell, Henry John.
1897 Trehearne, Alfred Frederick Aldridge.
1898 Tremlett, Walter William.
1898 Trent, William Edward.
1891 Tuckett, Percival Fox.
1897 Turner, Benjamin Franklin.
1897 Turner, Drysdale.
1899 Turner, Henry.
1897 Turner, Herbert.
1886 Turner, Percy.

Members who have Passed the Professional Associateship Examination—continued.

1889 Tyler, James William.
1893 Tyler, William.
1899 Type, Marcus Oswald.

1886 Vale, Henry.
1897 Veit, Leonard James.
1892 Venning, Alfred John Meybohn.
1890 Verity, Ernest George.
1895 Vinten, Harold Bertram.

1887 Wade, Henry.
1889 Wain, George Sparrow.
1893 Waldram, Robert Edward.
1895 Walker, William Selves.
1896 Wallis, John David.
1897 Walton, Edgar Thomas.
1898 Ward, Martin Hammond.
1898 Waring, Holt.
1898 Warmington, Herbert Andrew Cromartie.
1896 Warran, William Ernest.
1896 Warwick, George Ernest.
1887 Warton, Wilfred.
1897 Waterfield, Horace Clare.
1890 Watson, Claude Henry.
1899 Watson, David Alexander.
1895 Watson, Herbert John.
1884 Watson, James Bruce.
1885 Watson, John. Jun.
1893 Watson, William James.
1898 Weall, John Graham.
1892 Weatherhead, David Wilkinson.
1897 Weatheritt, James.
1896 Weaver, Henry Percival Francis.
1892 Webb, Frederick Noel.
1899 Webber, Henry Stanton.
1890 Webster, Hugh Calthrop.
1898 Weekes, Cyril Swaffer.
1897 Weir, James Scott.
1899 Wells, Frederic Beauchamp.
1892 Wells, William Henry.
1898 Welsh, Hugh.
1893 West, Charles Henry Edward
1899 West, Herbert James.
1896 Wheatley, Stephen Gladstane.
1887 Wheeler, Charles Trevor Ogle.
1892 Wheeler, John Henry.
1893 Whitaker, Ernest Victor.
1895 White, Walt. Ernest Coates.
1895 White, William, Jun.
1899 Whiteley, Cyprian Charles Oswald.
1894 Whittaker, John Dronsfield
1895 Whitton, Percy.
1899 Wigley, Sidney Prudden.
1896 Wigram, Henry Joseph.
1898 Wigram, Reginald Spencer.
1895 Wilde, Sidney Algernon.
1899 Wilkinson, Percy Newton.
1891 Wilks, Ernest Stringer.
1899 Williams, Arthur Codrington.
1897 Williams, Daniel Smith.
1894 Williams, Henry Cuthbert.
1898 Williams, Peter Lloyd Armstrong.
1893 Willis, Edward.
1896 Willoughby, Charles Albert.
1896 Wilson, Frederick Robert.
1891 Wilson, James Culvert.
1898 Wilson, John.
1892 Wilson, John Hayes.
1896 Wilson, Lawrence Richard.
1887 Wilson, William Edward.
1897 Wilson, James Percy.
1891 Windley, Henry Chadwick.
1899 Witham, James Bernard.

Members who have Passed the Professional Associateship Examination—continued.

1893 Wonnacott, Ernest William Malpas.
1898 Wontner-Smith, Percy.
1890 Wood, Charles Bruce.
1896 Wood, John Edward.
1894 Wood, Leslie Stuart.
1899 Woodcock, Frank Sydney.
1988 Wood-Martin, Henry Roger Bromhead.
1892 Woods, Arthur George.
1891 Woodward, Walter Henry.
1897 Woof, Robert Stephenson.
1886 Woolnough, John William.
1896 Woolnough, Tom.
1896 Wordsworth, Christopher.
1887 Worthington, James Scott.
1897 Wright, Ernest Beresford FitzHerbert.
1894 Wright, Philip Chetwood.
1899 Wright, Thomas Henry.
1897 Wrightson, John Frederick Hutton.
1893 Wrightson, Robert Garmondsway
1894 Wyatt, Archibald.
1898 Wyatt, Herbert Guy Buckell.
1893 Wyles, John Walter.

1899 Yewdall, Francis Edward.
1891 Young, Harry Austin Lindsay.
1898 Young, James Dawbarn.
1897 Young, Thomas John.
1895 Young, William.

Members Transferred since the publication of the January List from the Class of Professional Associates to that of Fellows.

Angel, Francis Houghton ...	50, Russell Road, Kensington, W.
Bidwell, Philip Shelford ...	St. Mary's Street, Ely, Cambridgeshire.
Blunt, Montague Cecil	8, Westbourne Crescent, Hyde Park, W.
Brighton, George Lawrence...	6, Challoner Mansions, Challoner Street, West Kensington, W.
Butler, Charles	14, Queen Street, Huddersfield.
Collins, Horace	5, Randolph Road, W.
Cox, Walter Theodore	Belmont, College Rd., Maidstone, Kent.
Easter, William	Wiggenhall, St. German, King's Lynn, Norfolk.
Goldsmith, Douglas Fleet ...	Lavant Street, Petersfield, Hants.
Gunter, James	Estate Office, Glasbury, Radnorshire.
Hayward, Thomas William Alfred	Borough Surveyor, Sudbury, Suffolk.

Members Transferred.—*continued.*

JENNINGS, FITZ-LAURENCE PERCIVAL DUDLEY	Old Post Office Chambers, Bournemouth, Hants.
LUKER, DYNELEY...	19, Waldick Road, Ealing, W.
NESBITT, JOHN OSCAR..	6, Limefield Terrace, Levenshulme, Manchester.
NORMAN, JAMES NOEL	Dunkery Lodge, Putney, S.W.
RIDLEY, PERCY EDWARD	34, Gorst Rd., Wandsworth Common, S.W.
ROOK, JOSEPH TAYLOR	5, Lonsdale St., Carlisle, Cumberland.
SEDGWICK, ALFRED SYDNEY EDWARD	195, Tulse Hill, S.W.
SHUFFLEBOTHAM, JOHN HENRY	Staplegrove, Taunton, Somerset.
SLY, JOSEPH TOWNSON	40, Chancery Lane, W.C.
WHEATLEY, STEPHEN GLADSTANE	28 & 29, Chancery Lane, W.C.
YOUNG, THOMAS JOHN...	South Eastern Agricultural College, Wye, Kent.

Members who have Died since the publication of the January List.

BANCROFT, HENRY	88, Mosley Street, Manchester.
BARRY, CHARLES...	Parliament Mansions, Victoria St., S.W.
CHOWEN, HENRY LLEWELLEN ...	Market Weighton.
CORBETT, CHRISTOPHER	9, Albert Square, Manchester.
FOWLER, EDWARD WILLOUGHBY	Ballinsloe, Co. Galway.
GRIERSON, JOHN NICHOLSON ...	Chertsey, Surrey.
MARSON, THOMAS	Higham, Hinckley.
MILNES, ELI	99, Swan Arcade, Bradford.
NICHOLSON, THOMAS COOKE ...	Blaydon-on-Tyne.
NUTTALL, THOMAS	20, Market Street, Bury, Lancashire.
RADFORD, WILLIAM RADFORD ...	County Offices, Preston, Lancashire.
ROBERTS, THOMAS	Portmadoc, North Wales.
ROBINSON, NATHANIEL WISHART	Marlowes, Hemel Hempstead, Herts.
SMALLPEICE, GEORGE BAKER ...	9 & 10, Tokenhouse Yard, E.C.
WADE, JOHN	10, Pitt Street, Barnsley.
WALKER, JOSEPH ARTHUR ...	Long Ashton, Clifton.
WILLIAMS, STEPHEN WILLIAM ...	Rhayader, Radnorshire.
WRIGHT, WILLIAM	Wollaton, Notts.

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(A) NORTHUMBERLAND AND DURHAM COMMITTEE.

Chairman.

THOMAS JOHN ARMSTRONG, 14, Hawthorn Terrace, Newcastle-on-Tyne.

AYNSLEY, ROBERT JOHN ...	Gosforth, Newcastle-on-Tyne.
BAINBRIDGE, ROBERT STAGG	Keverstone, near Staindrop, Durham.
BOLAM, WILLIAM THOMAS...	Cross House, Westgate Road, Newcastle-on-Tyne.
BRYDON, ROBERT...	The Dene, Seaham Harbour, Durham.
CLARK, JOHN MCCLARE ...	Haltwhistle and Hexham, Northumberland.
CLARK, NATHANIEL	Beamish Park, Chester-le-Street, Co. Durham.
CURRY, HENRY JOHN... ...	58, High Street, Stockton-on-Tees.
DURLACHER, ALEXANDER PERCY	3, Otterburn Villas North, Jesmond, Newcastle-upon-Tyne.
EADE, ARTHUR WILLOUGHBY FRENCH	Feethams, Darlington.
FORSYTH, THOMAS HILLS ...	39, Northumberland St., Newcastle-on-Tyne.
HEDLEY, JOHN HUNT	7, Ashbrooke Terrace, Sunderland.
JAMES, CHRISTIAN HUGH ...	Rudchester, Wylam-on-Tyne.
MILLER, JOHN EZRA	12, Belle Vue Road, Sunderland.
OLIVER, CHARLES EDWARD	Selby Lodge, Consett, Co. Durham.

PEIRSON, HENRY THOMAS ...	Brancepeth, R.S.O., Co. Durham.
RODHAM, JOHN	16, Finkle Street, Stockton-on-Tees.
ROWLANDSON, CHRISTOPHER	The College, Durham.
SAMPLE, CHARLES HERBERT	Matfen, near Newcastle-on-Tyne.
SAMPLE, THOMAS	Bothal Castle, Morpeth, Northumberland.
SAMPLE, WILLIAM COLLINGS	Tritlington Hall, Morpeth, Northumberland.
TAYLOR, HARRY WILLIAM...	St. Nicholas Chambers, Amen Corner, Newcastle-on-Tyne.
TAYLOR, JOHN WALTON ...	31, Westgate Road, Newcastle-on-Tyne.
WALL, GEORGE YOUNG ...	Exchequer Buildings, Durham.
WALLACE, HENRY...	Trench Hall, Gateshead-on-Tyne.
WELLS, EDWIN	Barnard Castle, Co. Durham.
WILSON, SIR JACOB	Chillingham, Alnwick.

Total, 27 Members.

(B) CUMBERLAND AND WESTMORELAND COMMITTEE.

Chairman.

FREDERICK PUNCHARD, Underley Estate Office, Kirkby Lonsdale, Westmoreland.

BANKS, JOHN...	Kendal, Westmoreland.
BIRKETT, TOM	Foxton House, Penrith, Cumberland.
BOWMAN, JOHN JAMES ...	Estate Office, Netherby, Carlisle.
HAYTON, JOSEPH WILLIAM...	9, Bank Street, Carlisle.
HAYTON, PATTINSON	9, Bank Street, Carlisle.
HESKETT, WILLIAM JAMES...	St. Andrew's Churchyard, Penrith, and Viaduct Chambers, Carlisle, Cumberland.
HOGGARTH, ARTHUR	Kendal, Westmoreland.
HOGGARTH, EDWIN	Kendal, Westmoreland.
HOLME, JOHN...	Owlet Ash, Milnthorp, Westmoreland.
HUDSON, JAMES	Penrith, Cumberland.
LITTLE, WILLIAM	Hutton Hall, Penrith, Cumberland.
POTTS, JAMES...	Stanbeck, Workington, Cumberland.
RICHARDSON, GEORGE	5, Lonsdale Street, Carlisle.
ROOK, JOSEPH TAYLOR ...	5, Lonsdale, Street, Carlisle.
STANLEY-DODGSON, STANLEY DICKENSON	Estate Office, Somerset House, Whitehaven, Cumberland.
WATT, ALEXANDER	Ravenglass, Carnforth.
WEBSTER, ALEXANDER ...	100, Highgate, Kendal, Westmoreland.
WOOF, ROBERT STEPHENSON	Estate Office, Lowther, Penrith, Cumberland.

Total, 19 Members.

(C) LANCASHIRE AND CHESHIRE.

Chairman.

HENRY HARTLEY, Bristowe Chambers, 8, Harrington Street, Liverpool.

BANCROFT, FREDK. HERBERT	88, Mosley Street, Manchester.
BANKS, THOMAS	60, King Street, Manchester.
BARROW, THOMAS ROBERT...	Post Office Avenue, Southport.
BATEY, HENRY SIMPSON ...	51, King Street, Manchester.
BECKWITH, HENRY LANGTON	3, Cook Street, Liverpool.
BERTWISTLE, JAMES	1, Tackett's Street, Blackburn.
BIRCH, RICHARD ELWYN ...	Stonehouse, Chester.
BIRCH, WALTER DE HOGHTON	Hoghton Estate Office, Walton Hall, Preston.
BOWDEN, JOHN	14, Ridgefield, Manchester.
BRADSHAW, HARRY GREAVES	28, Barton Arcade, St. Ann's Sq., Manchester.
BRADY, CHARLES ALLDIS ...	17, Warren Street, Stockport.
BRADY, RALPH HOLLINSHED	78, Cross Street, Manchester.
BRADY, WILLIAM HOLLINSHED	17, Warren Street, Stockport.
BRIDGFORD, ERNEST JAMES	28, Cross Street, Manchester.
BRIDGFORD, COL. ROBERT, C.B.	28, Cross Street, Manchester.
BROCKLEBANK, JOHN	58A, Yorkshire Street, Rochdale, and Cross-brook, Todmorden.
CAMPBELL, HENRY HUNTER	Sutton Hall, St. Helen's.
CARSWELL, WILLIAM	Capesthorne, Chelford, Cheshire.
CARTWRIGHT, ALFRED STOTT	Council Office, Wilmslow, Cheshire.
CARTWRIGHT, JOSHUA	Peel Chambers, Bury, Lancashire.
CROSS, JOHN	77, King Street, Manchester.
CROSS, WILLIAM HASLAM ...	77, King Street, Manchester.
DORNING, ARTHUR HARRY...	41, John Dalton Street, Manchester.
EAGLE, WILLIAM	Westminster Buildings Brown Street, Manchester
EARLE, THOMAS ALGERNON...	90, King Street, Manchester, and Liverpool.
EARNSHAW, JACOB	78, King Street, Manchester.
EASTHAM, JAMES COOK ...	The Town Hall, Manchester.
ELLIS, FRANCIS, JUN.	Trafford Park, Patricroft, near Manchester.
FAIR, JACOB WILSON	Haigh Hall, Wigan, & 8, Winckley St., Preston.
FAIR, JAMES STRETTON ...	4, Winckley Street, Preston.
FAIR, THOMAS	Estate Offices, Lytham.
FAIRCLOUGH, WILLIAM ...	Leigh, Lancashire, and 60, King Street, Manchester.

FLETCHER, THOMAS	Dunkenhalgh, Clayton-le-Moors, near Accrington, and 46, Fishergate, Preston.
FOWLER, ALFRED MOUNTAIN	1, St. Peter's Square, Manchester.
FOWLER, HENRY	63, Dale Street, Manchester.
GRADWELL, RICHARD ARTHUR	29, Victoria Street, Blackburn.
GREGSON, GEORGE ERNEST...	11, Chaple Street, Preston.
HALL, JOHN HERBERT	6, South St., Albert Sq., Manchester, 2, Durham Road, Altrincham, and Knutsford, Cheshire.
HANSON, AMOS	35, Church Street, St. Helen's.
HARGREAVES, STEPHEN ...	Brabyns Estate Office, Manor House, Marple, Cheshire.
HOLDEN, JOHN...	64, Cross Street, Manchester.
HOLT, GEORGE HENRY	10, Richmond Terrace, Blackburn.
HOPKINSON, ALFRED	15, Agar Street, Bury, Lancashire.
HURRELL, JOHN WEYMOUTH	25, Brazennose Street, Manchester.
JACKSON, CHARLES	23, Brazennose Street, Manchester.
JONES, ISAAC MATTHEWS ...	The Town Hall, Chester.
JOHNSTON, WALTER HENRY...	County Offices, Preston.
KIRBY, EDMUND	5, Cook Street, Liverpool.
LANCASTER, CHAS. HOLLAND	Union Offices, Brougham Terrace, West Derby Road, Liverpool.
LARMUTH, GEORGE HORATIO	Wilton Chambers, 10, St. Ann's Square, Manchester.
LINAKER, CHARLES EDWARD	Frodsham, Chester.
LORING, JOHN...	The College, Doddington, Nantwich.
MCCRACKEN, WILLIAM ...	Englesea House, Crewe.
MACIVER, COLIN	23, Bold Strees, Warrington.
MAXWELL, FRANCIS WILLIAM	41, Corporation Street, Manchester.
MEADE, THOMAS DE COURCY	The Town Hall, Manchester.
MELLER, WILLIAM GALLOWAY	22, Cooper Street, Manchester.
MILLS, WILLIAM EDWARD ...	49, Hamilton Square, Birkenhead.
MYRES, JOHN JAMES	15, Chapel Street, Preston, and Blackpool.
NESBITT, JOHN OSCAR	6, Linefield Terrace, Levenshulme, Manchester.
NEVETT, FRANCIS WALTER ...	34, Brackenbury Road, Preston.
NEVETT, THOMAS	41, Fishergate, Preston.
NUTTALL, HERBERT	20, Market Street, Bury, Lancashire.
OWEN, RICHARD NEWSHAM...	Haughton, Tarporley.
PAIN, COARD SQUAREY... ...	14, North John Street, Liverpool.
PARK, PHILIP SAMUEL	The Oaks, Penwortham, Preston.
PARK, WILLIAM PHILIP ...	18, Winckley Street, Preston.
PARKER, HON. CECIL THOMAS	Eccleston, Chester.
PARMETER, FRANK	Middle Lees, Clitheroe.

Pearson, Alfred...	Estate Offices, Dukinfield.
Rea, John Marcus Beaumont	8, Winckley Street, Preston.
Richmond, Walter Coleridge	Ivy Rock, Vicar's Cross, Chester.
Robinson, George Edward	9, Tackett's St., Blackburn, and Clitheroe Castle.
Roper, John Simpson	32, Market Square, Lancaster.
Secker, John Eustace ...	Estate Office, Warrington.
Shelmerdine, Henry	Estate Offices, L. & Y. Railway, Hunt's Bank, Manchester.
Smith, John Thompson ...	Tattondale, Knutsford, Cheshire.
Stocks, Frederick William	Telephone Buildings, Baron's Quay, Northwich.
Suthers, James	Harley Villas, Todmorden.
Taylor Thomas Walters ...	25, Brazennose Street, Manchester.
Thomas Glegge	Cheshire Lines Committee Central Station, Liverpool
Thompson, Francis William	18, Wood Street, Bolton.
Wainwright, Thomas Taylor	13, Union Court, Castle Street, Liverpool.
Wallis, John David	20, Booth Street, Manchester.
Watts, Samuel Lingard ...	40, South King St., Cross St., Manchester.
Whalley, Henry Shaw ...	3, Hunter Street, Town Hall Sq., Chester.
White, John	Warrington, Lancashire.
Wilson, Lawrence Richard	St. Andrew's Chambers, Albert Square, Manchester.
Wilson, Thomas Silk... ...	Albert Square, Manchester.
Wilson, William Henry ...	29, Fountain Street, Manchester.
Wolfenden, Thomas	54, Hall Street, Southport.
Wrennall, William	9, Harrington Street, Liverpool. [pool.
Young, Edward Herbert...	Central Chambers, South Castle St., Liver-
Yound, Oswald William ...	Mersey Docks and Harbour Board, Liverpool

Total, 95 Members.

(D) YORKSHIRE COMMITTEE.

Chairman.

John Farrer, Oulton, near Leeds.

Abbey, Joe Burman	34A, New Street, Huddersfield.
Abbott, Robert Thomas G.	Whitley House, Malton.
Armistead, Richard	118, Main Street, Bingley.
Armytage, Sir George Bt.	Kirkless, Brighthouse.
Bilson, John	23, Parliament Street, Hull.

Botterill, William	23, Parliament Street, Hull.
Bradley, William Edward	The Hall, Ebberston, York.
Broderick, Frederick Stead	Cogan Chambers, Bowl Alley Lane, Hull.
Broster, Robert Buck ...	Craven Bank Chambers, North St., Keighley.
Buckley, George	Tower Chambers, Halifax.
Butler, Charles...	14, Queen Street, Huddersfield.
Clare, Edward Lovell ...	Yorkshire Bank Chambers, Bradford.
Clarke, Christopher ...	Charlcot, Bedale.
Clarke, John William ...	Guisborough.
Clutton, William James ...	The Mount, York.
Cowgill, Brian Bollans Hird	13A, Piece Hall Yard, Bradford.
Cox, Edward Samuel... ...	3, New Street, York.
Crowther, John Herbert	38, New Street, Huddersfield.
Demetriadi, Thomas Marsden	28, John William Street, Huddersfield.
Dransfield, Henry Brook	12, 13, and 14, Estate Buildings, Huddersfield.
Easton, John H.	Bowl Alley Lane, Hull.
Evans, William	New Walk, Beverley.
Fawcett, John Mortimer	26, Albion Street, Leeds.
Fawkes, Algernon	Woolley, Wakefield.
Fenwick, Thomas	Leeds.
Forbes, Charles Mansfeldt	14, New Street, York.
Fowler, Frederick	St. James' Street, Sheffield.
Fowler, Reginald William	3, Heartshead, Sheffield.
Fox, Charles James	7, Rawson Street, Halifax.
France, Arthur Alderson	99, Swan Arcade, Bradford.
France, Charles	99, Swan Arcade, Bradford.
Fryer, George	Conservancy Buildings, Whitefriar Gate, and Rose Villa, Bishop Wilton, near York.
Gott, Charles	8, Charles Street, Bradford.
Gott, Charles Henry ...	8, Charles Street, Bradford.
Gott, Frank...	3, East Parade, Leeds.
Greaves, John Oldroyd ...	69, Westgate, Wakefield.
Gregson, William	Baldersby, S.O. Yorks.
Hanson, John Henry	20, Ramsden Street, Huddersfield.
Hebblethwaite, Louis ...	Conservancy Buildings, and Aulaby Road, Hull.
Hepper John	East Parade, Leeds.
Hindle, John...	24, Bank Street, Bradford.
Hobson, Harry	Swinefleet, near Goole.
Hollis, Walter Dawson ...	26, Park Row, Leeds.
Horsfall, Richard	22A, Commercial Street, Halifax.
Horsfall, Richard Edgar	22A, Commercial Street, Halifax.

Innocent, Charles John ...	Sheffield.
Jackson, Benjamin Whitehead	7, Rawson Street, Halifax.
Jackson, Samuel...	Tanfield Chambers, Bradford.
Jolly, John Hawkins ...	1, Dalton Terrace, The Mount, York.
Kaye, John Edward	Bretton Lodge, Wakefield.
Leather, George Herbert	Central Bank Chambers, Leeds.
Lofthouse, Roger	62, Albert Rd., Middlesbrough-on-Tees.
Marshall, Peter	3, Hartshead, Sheffield.
Massie, Frank	Tetley House, Kirkgate, Wakefield.
Oldroyd, Linley...	5, Oxford Place, Leeds.
Peirson, George Brodrick	Baldersby, S.O., Yorkshire.
Piercy, Henry Onslow ...	The Elms, Lowthorpe.
Pierson, Charles	29, Cooper Street, Manchester.
Popple, John...	19, St. Hilda's Terrace, Whitby.
Renton, George	1, Albert Street, Harrogate.
Richardson, John	Methley Park, Leeds.
Sampson, William	Beauchief Abbey, Sheffield.
Sandford, Charles Sidney	16, St. James Row, Sheffield.
Smith, Frederic Ellison...	Tanfield Chambers, Bradford.
Smith, Harry Russell ...	Exchange Buildings, Bradford.
Smith, Wheater...	15, Cheapside, Bradford.
Tiffen, John Henry	26, Dover Street, Hull.
Todd, William Henry ...	County Buildings, Hull.
Townend, William	Park Farm, Seacroft, near Leeds.
Walker, Francis Elliott	Blake Street, York.
Watson, John, Jun.	Wentbridge Lodge, Pontefract.
Wellstead, William Henry	Prince's Dock Chambers, Hull.
White, Alfred Edward ...	Town Hall, Hull.
Wilde, William	Brockett House, Sharrow, Sheffield.
Winn, Thomas	92, Albion Street, Leeds.
Woodhead, William Booth	18, Exchange Buildings, Bradford.
Wright, James	Rawcliffe, near Selby.

Total, 78 Members.

(E) SALOP AND HEREFORD COMMITTEE.

Chairman.

HENRY JAMES WYLEY, Bridgnorth, Salop.

ASHDOWN, AUGUSTUS HARDING	Uppington, near Willington, Salop.
BATHER, JOHN T....	9, The Square, Shrewsbury.
BROWN, JOHN POWLES ...	21, East Street, Hereford.
BURD, TIMOTHEUS HENRY ...	School Gardens, Shrewsbury.
CARNELL, SYDNEY GEORGE	Estate Office, Condover, Shrewsbury.
DAVIS, ALFRED THOMAS ..	Shire Hall, Shrewsbury.
DODGSON, WILFRED LONGLEY	The Court, Cleobury North, Bridgnorth, and 55, Broad Street, Ludlow.
EVANS, WILLIAM ERNEST ...	School Gardens, Shrewsbury.
FENN, ANDREW THOMAS CRANAGE	The Lodge, Bromfield, Shropshire.
FENN, THOMAS	Downton Castle, Ludlow.
GODSELL, GEORGE HERBERT	Palace Chambers, King Street, Hereford.
GRIFFITHS, EDWARD, JUN.	Knockin, near Oswestry.
HALL, WILLIAM TIMOTHY ...	College Hill, Shrewsbury.
HAYWOOD, HENRY	9, West Street, Hereford.
HAYWOOD, WILLIAM MATHEWS	9, West Street, Hereford.
HICKMAN, THOMAS	Leaton, near Shrewsbury.
LAWFORD, WILLIAM ROBINSON	Underhill, Oswestry.
MCKIE, HUGH UNSWORTH ...	Lincoln Villa, Julian Road, Ludlow.
MILLYARD, JOHN WILLIAM	Estate Office, Saltmarshe Castle, Bromyard.
MORRIS, EDWARD HENRY ...	Chirbury, Salop.
MORRIS, WILLIAM HENRY...	West House, Chirbury, Salop.
NEWILL, ROBERT HENRY ...	Lydbury North, Shropshire.
OWEN, HENRY	Dana Chambers, Shrewsbury.
PALAMOUNTAIN, JOSEPH WILLIAM	Cloverley Estate Office, Whitchurch, Salop.
PARKER, JOHN	Mansion House, Hereford.
THURSFIELD, THOMAS HOWELLS	The Grange, Much Wenlock, Salop.
TOWER, BROWNLOW RICHARD CHRISTOPHER	Bridgewater Estate Office, Ellesmere, Salop.
WARD, FELIX JOHN	The Gardens, Lydbury North, Salop.
WOLLEY, THOMAS JOHN ...	Clungunford Est. Off., Aston-on-Clun, Salop.
WYLEY, WILLIAM JOHN ...	2, School Chambers, Shrewsbury.

Total, 31 Members.

(F) DERBY AND STAFFORD COMMITTEE.

Chairman.

HENRY GEORGE DUNCALFE, 102, Darlington Street, Wolverhampton.

ARNOLD, WILLIAM...	23, George Street, Tamworth, Staffs.
BARNES, GEORGE FREDERICK	Estate Office, Wingerworth Hall, near Chesterfield.
BOOTHBY, HENRY VERNON ...	Estate Office, Keele, & Newcastle-under-Lyme.
BRADLEY, JAMES WILLIAM...	Town Hall, Wolverhampton.
BRAILSFORD, HENRY	Park Nook, near Derby.
BRUCE, ROBERT KNIGHT ...	Hathersage, by Sheffield.
BURTON, AMOS	Borough Engineer's Office, Hanley.
BYRON, AUGUSTUS WILLIAM	Sutton Estate Offices, Duckmanton, Chesterfield.
EARDLEY, JOHN WILLIAM ...	The Grove, Alfreton, Derbyshire.
FODEN, EDWARD ANTROBUS	Teddesley Estate Office, Penkridge, Staffs.
FORSHAW, EDWARD	Hanley, Staffordshire, and Springfields, Stramshall, Uttoxeter.
FULLER, THOMAS ALFRED ...	The College, All Saints, Derby.
HARDY, RICHARD THOMAS ASH	Land Agency and Estate Offices, Carter Street, Uttoxeter, Staffs.
HARRISON, CHARLES	179, Hornington Street, Burton-on-Trent.
HARRISON, JOHN EDWARD ...	Estate Office, Allestree, near Derby.
HEATON, GEORGE HERBERT	Endon, near Stoke-upon-Trent.
HUBBERSTY, HENRY ALFRED	Buxton, Derbyshire.
HUSSEY, ROBERT	Eastfields, near Lichfield.
INGE, CHARLES HENRY ...	Broom Leasoe, Whittington, Lichfield.
JEUDWINE, WILLIAM WYNNE	Chesterfield.
LONGSDON, ERNEST MOREWOOD	Town Hall, Bakewell.
LYNAM, CHARLES	Stoke-on-Trent.
MARGERESON, CHARLES FREDERICK	New Square, Chesterfield.
MARTIN, GILSON	Chatsworth, Chesterfield.
MAY, THOMAS HENRY... ...	Haslin House, Harpur Hill, Buxton.
MYNORS, WALTER CHARLES TOWERS	Little Ingestre, Stafford.
NOCK, BENJAMIN BOWEN ...	48, Queen Street, Wolverhampton.
PARKIN, JOHN ROBERT ...	Idridgehay, near Derby.
ROWLAND, JOSEPH SAMUEL...	Bridge Chambers, Burton-on-Trent, Staffs.

SAMPSON, GEORGE...	Beauchief Abbey (near Sheffield), Derby.
SANDY, HENRY	Newport Road, Stafford.
SHAW, JOHN	College Place, Derby.
SHAW, JOHN, JUN....	The College, All Saints, Derby.
TOMLINSON, THOMAS	2, St. James's Street, Derby.
THORPE, CHRISPOPHER ...	Spring House, Calow, Chesterfield.
TURNOR, EXSUPERIUS WESTON	The Green, Staffordshire.
WINTERTON, HARRY JOHN CAMPION	Walton Warren, Burton-on-Trent.
WINTERTON, WILLIAM MOXON	St. Mary's Chambers, Lichfield.

Total, 39 Members.

(G) NOTTINGHAM AND LINCOLN COMMITTEE.

Chairman.

SAMUEL KINGSTON, Spalding, Lincs.

ABBOTT, WILLIAM	Holbeach, Lincs.
BAILEY, WILLIAM SMITH ...	4, Kirkgate, Newark-upon-Trent.
BARNES JOHN WILLIAM JAMES	Friar Lane, Nottingham.
BEAUMONT, CHARLES	East Bridgford, near Nottingham.
BELL, JOSEPH ASKEW	Rufford Estate Office, Ollerton, Notts.
BOOKER, FRANK WILLIAM ...	7, Albion Chambers, King Street, Nottingham.
CALVERT, ARTHUR RICHARD	14, Low Pavement, Nottingham.
CORBY, JOSEPH BOOTHROYD	15, All Saints' Place, Stamford.
CROFTS, EWAN NEVILLE ...	Caythorpe, Grantham, Lincs.
EVANS, ROBERT	Eldon Chambers, Wheeler Gate, Nottingham.
HAWLEY, SIR HENRY MICHAEL BART.,	Tumby Lawn, Boston.
HAYNES, HENRY	Estate Office, Clifton, Nottingham.
HIGGINS, FREDERIC	Alford, Lincs.
HINE, GEORGE THOMAS ...	Victoria Street, Nottingham.
HUSKINSON, THOMAS WM. ...	Epperstone Manor, Nottingham.
HUSKINSON, WILLIAM LAMBE	Manor House, Epperstone, Notts.
LEGARD, DIGBY CHARLES ...	Highington Hall, Lincoln.
LISTER-KAYE, CHARLES WILKINSON	Osberton, Worksop, Notts.
MANNERS, HENRY ALFRED	Buckminster Park, near Grantham.
MASON, CHARLES	Westgate, Louth, Lincs.
MORRIS, CHARLES	The Lodge, Ratcliffe-on-Trent, Notts.

PARKIN, WILLIAM	Babworth, Retford, Notts.
RICHARDSON, CHARLES ...	15, Barn Hill, Stamford, Lincolnshire.
RICHARDSON, JAMES	13, Barn Hill, Stamford, Lincolnshire.
TINDALL, CHARLES WILLIAM	Wainfleet, R.S.O., Lincolnshire.
TURNER, FREDERICK JOHN...	Mansfield Woodhouse, Notts.
TURNER, THOMAS WARNER...	Welbeck Abbey, Worksop, Notts.
TURTON, EDWARD JAMES ...	Horkstow, Barton-on-Humber, Lincolnshire.
VALLANCE, ROBERT FRANK...	Mansfield, Notts.
WALKER, GEORGE BOOTH ...	Wainfleet, R.S.O., Lincolnshire.
WALKER, HERBERT	Newcastle Chambers, Angel Row, Nottingham.
WALKER, JOSEPH	Lenton Avenue, The Park, Nottingham.
WALKER, JOSHUA	Market Place, Retford, Notts.
WIGRAM, JOHN	South Collingham, Newark, Notts.
WOOLLEY, REGINALD	Silver St., Lincoln, & South Collingham. Nottinghamshire.
WOOLLEY, T. CECIL SMITH	South Collingham, Newark, Notts.
WORDSWORTH, ROBERT WALTER.	Whitemoor, Ollerton, Nottinghamshire. Notts.
WRIGHT, CHARLES WILLIAM.	Wollaton, Notts.

Total, 39 Members.

(H) MONMOUTHSHIRE AND SOUTH WALES COMMITTEE.

Chairman.

ROBERT FORREST, Windsor Estate Office, St. Fagan's, near Cardiff.

BARKER, GEOFFREY LIONEL	Kilnback, Angel ,Pembrokeshire.
BLAKE, GEORGE	Stradey Estate Office, New Road, Llanelly.
BLOSSE, EDWARD F. LYNCH	Charles Street Chambers, Cardiff.
BROWN, THOMAS FORSTER ...	Guildhall Chambers, Cardiff.
COLES, SAMUEL HOOD COWPER	Penmyarth, Crickhowell, South Wales.
CORBETT, EDWARD WORTLEY MONTAGUE	Bute Estate Office, Castle Street, Cardiff.
DAVID, EDMUND USSHER ...	Old Bank Chambers, 27, High Street, Cardiff.
DAVIES, JOHN MORGAN ...	Froodvale, Llanwrda, South Wales.
EVANS, ARTHUR OWEN ...	Town Hall, Pontypridd.
GARDINER, ROBERT STRACHAN	The Estate Office, Troy, Monmouth.
GRAHAM, ARTHUR GORE ...	"Brynawel," Usk, Monmouthshire.
GRAHAM, WILLIAM	Victoria hambers, Newport.

GRIFFITHS, WILLIAM	Gelley Wernen Estate, Llanelly, Carmarthenshire.
HARPUR, WILLIAM	Town Hall, Cardiff.
HITCHCOX, WILLIAM	Victoria Chambers, Newport.
LEEDER, ERNEST HOLTHAM	46, Waterloo Street, Swansea.
LLEWELLIN, DAVID MORGAN	Glanwern Offices, Pontypool.
OWEN, THOMAS HENRY RULE	High St., Haverfordwest, Pembrokeshire.
OWEN, THOMAS RULE	High St., Haverfordwest, Pembrokeshire.
PRICE, FRANCIS HOLBORROW GLYNN	Longlands Place, Swansea.
REES, ITHEL TREHARNE ...	Guildhall Chambers, Cardiff.
REES, WILLIAM GEORGE ...	Holly House, Newport.
REES, WILLIAM JOHN	The Laurels, Swansea.
RIGG, CHARLES	24, High Street, Cardiff.
ROONEY, SAMUEL	Cefn Mabley Chambers, Quay St., Cardiff.
TANNER, WILLIAM	The Leys, Bryngwn Road, Newport.
THOMAS, GEORGE	Queen's Chambers, Cardiff.
WANKLYN, PHILLIP ENDELL	Dixton, near Monmouth.
WARING, CHARLES EDWARD	1, Charles Street, Crockherbtown, Cardiff.
WILKINS, WILLIAM	Pencastell, Llanelly.
WILLIAMS, GERALD GARNONS	St. John's Mount, Brecon.

Total, 32 Members.

(I) WARWICK AND WORCESTER COMMITTEE.

Chairman.

EDWARD BETTRIDGE, 28, Waterloo Street, Birmingham.

BICKERTON - WILLIAMS, EDWARD	City Chambers, 82, New St., Birmingham.
BUCK, ALBERT.	Worcester.
BUCK, HERBERT WILSON ...	Pierpoint Street, Worcester.
CAVE, HENRY H.	Estate Office, Rugby.
CHAMBERLAIN, ARTHUR GEORGE RADDON	Leamington House, Malvern Wells.
CLARKE, ALFRED DUDLEY ...	Estate Office, Abberley, Stourport.
COUCHMAN, ROBERT EDWARD	35, Paradise Street, Birmingham.
DEER, EDWARD	Stratford-on-Avon.
DONNE, HENRY	71, Temple Row, Birmingham, and Leek Wootton, Warwick.
EAYRS, JOHN THOMAS ...	Clarence Chambers, Corporation Street, Birmingham.

Evans, Walter Pearson ...	Caldwell, Nuneaton.
Everill, Frank	59, Foregate Street, Worcester.
Fayerman, George Metcalf	88, The Parade, Leamington.
Fiddian, William	Old Bank Offices, Stourbridge.
Fosbery, William Thomas Exham...	Warwick.
Fowler, Gerard Edmund	98, New Street, Birmingham.
Fowler, Henry	6, Waterloo Street, Birmingham.
Fowler, Richard	118, Colmore Row, Birmingham.
Fowler, William	69, Temple Row, Birmingham, and Sutton Coldfield.
Gibson, Denston	98, New Street, Birmingham.
Gilpin-Brown, William Dundas	Starton, Kenilworth.
Grimley, Edwin Fearne ...	40, Temple Street, Birmingham.
Grimley, Thomas	40, Temple Street, Birmingham.
Hadley, Frank	59A, Temple Row, Birmingham.
Hedley, Robert Wilkin ...	31A, Colmore Row, Birmingham.
Hendriks, Henry	34, Waterloo Street, Birmingham.
Holbeche, Robert Neville	21, Bennett's Hill, Birmingham.
Jenkins, Oswald	57, Colmore Row, Birmingham.
Joseland, Charles	Bank Buildings, Kidderminster.
Kenwrick, George	83, Colmore Row, Birmingham.
King, Henry	Stourbridge.
Lakin-Smith, Ernest... ...	98, New Street, Birmingham.
Ludlow, Walter Robert	Dorridge, Knowle, Warwick, and 18, New Street, Birmingham.
Margetts, John William ...	12, High Street, Warwick.
Mason, William Arthur ...	31A, Colmore Row, Birmingham.
Mathews, George Spencer	15, Waterloo Street, Birmingham.
Mathews, William	21, Augustus Rd., Edgbaston, Birmingham.
Parker, William Henry ...	3, Foregate Street, Worcester.
Pemberton, Charles Oliver Paget	69, Temple Row, Birmingham.
Pinney, Frederick Wyld-bore Digby	6, Waterloo Street, Birmingham.
Price, John	City Surveyor's Office, The Council House, Birmingham.
Raffety, Herbert William	71, Temple Row, Birmingham.
Raikes, Col. George Whitt-ington	Ragley Estate Office, Alcester, Redditch.
Righton, Edward Grantham	High Street, Evesham, Worcestershire.
Robins, William Henry ...	82A, New Street, Birmingham.
Roderick, John	2, Temple Row, West Birmingham.
Smith, Frank	37, Cannon Street, Birmingham.

SMITH, FRANK WILLIAM ...	Beauchamp Hill, Milverton, Leamington.
SMITH, WILLIAM	Abbott's Salford, Evesham.
STALLARD, WILLIAM	Sunny Lodge, Malvern Link, and Estate Office, Madresfield, Malvern Link.
STEWART, SAMUEL PARR ...	Arbury, Nuneaton.
TOMSON, JAMES JOHN	The Chalet, King's Norton, nr. Birmingham.
WILLMOT, GEORGE DYOTT ...	6, Waterloo Street, Birmingham.
WILLMOT, JOHN	6, Waterloo Street, Birmingham.

Total, 55 Members.

(J) LEICESTERSHIRE, NORTHAMPTONSHIRE, AND RUTLAND COMMITTEE.

Chairman.

CHARLES GODFREY BOLAM, Estate Office, Boughton House, Kettering, Northamptonshire.

ARIS, JOHN WHITTON	Loys Weedon House, near Towcester, Northamptonshire.
BLETSOE, HENRY HOPKINSON	Thrapston, Northamptonshire.
CAVE, THOMAS NEWMAN ...	Horton, Northampton.
CLARE, EDWARD LOVELL ...	33, Friar Lane, Leicester.
CLOUGH-TAYLOR, HORACE GEORGE	Friar Lane, Leicester.
COALES, HERBERT GEORGE ...	Local Board Offices, Market Harborough.
DICKSON, THOMAS ARTHUR	Estate Office, Overstone Park, Northampton.
DRAPER, ARTHUR THOMAS	39, Friar Lane, Leicester.
EVERARD, JOHN BREEDON ...	6, Millstone Lane, Leicester.
FISHER, CHARLES BROWNING	Hill Crest, Market Harborough.
FISHER, EDWARD KNAPP ...	Market Harborough, Leicestershire.
GERMAN, GEORGE	Packington House, Ashby-de-la-Zouch.
GERMAN, HARRY	Market Street, Ashby-de-la-Zouch, and Loughborough.
GERMAN, JOHN	Ashby-de-la-Zouch.
GERMAN, JOHN, JUN.	Huntingdon House, Ashby-de-la-Zouch.
GODDARD, JOSEPH	Market Street, Leicester,
GOODACRE, JOHN	5, Friar Lane, Leicester.
GOODACRE, ROBERT JOHNSON	Friar Lane, Leicester.
HAIGH, THOMAS FREDERICK	2, Friar Lane, Leicester.
HAMPTON, WILLIE THOMAS ...	Swan Street, Loughborough.
HINCKS, HENRY THORP ...	Wigston Hall, Leicester.
HODSON, GEORGE	Town Hall, Loughborough.

Holloway, Harry Hownam	Market Harborough.
Humphreys, Henry	Woodhouse, Loughborough.
Humphreys, John Henry ...	Woodhouse, Loughborough.
Joyce, John Hall	Blackfordby, Leicestershire, near Burton-on-Trent.
Law, Edmund	St. Giles' Square, Northampton.
Martin, Robert Frewin ...	Mountsorrel, Loughborough.
Merry, Thomas	2, Guildhall Road, Northampton.
Perkins, Joseph	Frisby-on-the-Wreake, Leicester.
Rolleston, Sir John Fowke Lancelot	Grey Friars, Leicester.
Rolleston, William Gustavus Stanhope ...	Grey Friars, Leicester.
Royce, David Needham ...	Oakham.
Royce, John	Oakham.
Sebastian-Smith, Charles	Friar Lane, Leicester.
Scriven, Richard George...	Castle Ashby, Northampton.
Thorpe, John	Nailstone, Nuneaton.
Thorpe, William...	Nailstone, Nuneaton.
Wade, George Tempest ...	Halford Street, Leicester.
Woodforde, Lionel Burnet	Milton Ferry, Peterborough.
Woolley, William Edward	The Red House, Loughborough.

Total, 42 Members.

(K) CAMBRIDGE, HUNTINGDON, NORFOLK, AND SUFFOLK COMMITTEE.

Chairman.

John Looker, High Street, Huntingdon.

Bacon, Frank Mace	Attleborough, Norfolk.
Bacon, Horace	Attleborough, Norfolk.
Bailey, Henry David Chinery	Fundenhall Grange, Norwich.
Beck, Arthur Clement ...	Castle Rising, King's Lynn, & Sandringham.
Beck, Edward William ...	16, Bank Street, Norwich.
Beck, Frank Reginald ...	Sandringham.
Bellingham, Archibald Turner	Cheveley Estate Office, Newmarket.
Bidwell, Charles	Ely, Cambridge.

Bidwell, Philip Shelford	St. Mary's Street, Ely, Cambridgeshire.
Bird, John	Brampton, Huntingdon.
Blencowe, George	Bury St. Edmund's.
Boa, Andrew...	Great Thurlow, near Newmarket.
Chalk, Henry Philip... ...	Linton, Cambridgeshire.
Falcon, Michael...	Horstead House, Norfolk.
Freuer, William...	West Rudham, King's Lynn.
Garrard, Norton Burroughs	Cranley Hall, Eye.
Gayford, Henry John ...	Estate Office, Fast Raynham, Norfolk.
Gaze, Thomas William ...	Frenze Hall, Diss, Norfolk.
Grain, Arthur Tress ...	2, St. Andrew's Hill, Cambridge.
Hawkins, Charles	Downham Market, King's Lynn.
Hayward, Thomas William Alfred	Borough Surveyor, Sudbury, Suffolk.
Hornor, Charles Jared ...	32, Prince of Wales Road, Norwich.
Hornor, Francis...	Queen Street, Norwich.
Ireland, Edwin Benjamin	Guestwick, Fast Dereham.
Jonas, Harry Marshall ...	27, Market Place, Cambridge.
Laurance, John	Sexton Barns, Peterborough.
Mills, Samuel Mealing ...	Orford Hill, Norwich.
Morgan, Benjamin Brauford	6, Bank Street, Norwich.
Moyes, John Helenus ...	66, St. Andrew's Street, Cambridge.
Pain, James	St. Mary Street, Ely, Cambs.
Pells, Arthur	Beccles and Lowestoft.
Peppercorn, J. Hutchinson	Manor House, Eaton Socon, St. Neot's.
Preedy, Frederick	Caldecot, St. Neot's.
Rix, George Kerry	Somerleyton, near Lowestoft.
Rose, Thomas	21, Prince of Wales Road, Norwich.
Salter, William Herbert...	The Hall, Attleborough, Norfolk.
Scott, Archibald Lacy ...	Bury St. Edmund's.
Scott, Augustus Frederic	24, Castle Meadow, Norwich.
Scott, Henry Lacy	Bury St. Edmund's.
Scruby, William Thomas...	Post Office Terrace, Cambridge.
Selby-Bigge, Charles P. O.	Didlington Estate Office, Brandon, Norfolk.
Simpson, Robert Thomas...	Horsecroft, Bury St. Edmund's.
Stirton, Thomas	Estate Office, Bawdsey, Woodbridge Suffolk.
Tallent, Edwin James ...	West Acre, Swaffham, Norfolk.
Theakston, William Pease	Huntingdon.
Wilkin, Horace Martin ...	King's Lynn.
Wright, William Edward...	King's Lynn.

Total, 48 Members.

(L) BERKS, BUCKS, AND OXON. COMMITTEE.

Chairman.

ARTHUR LAWRENCE, Great Marlow, Bucks.

ADKIN, CHARLES DUNCAN ...	Wantage, Berks.
BAILEY, LOUIS HEWITT ...	Athenæum Buildings, Fair Street, Reading.
BINGHAM, ALFRED JOHN ...	Nalder Hill House, Newbury.
BUCKLAND, FRANK BOWRY	Windsor.
BUCKLAND, SID. CRAWFORD	Windsor.
BUTLER, ALBERT ERNEST ...	20, Blagrave Street, Reading.
CASTLE, ARTHUR	11, King Edward Street, Oxford.
CASTLE, HAROLD	11, King Edward Street, Oxford.
COOPER, ARTHUR LESLIE ...	17, Friar Street, Reading.
DAVIS, CHARLES EDWARD ...	Wroxton Estate Office, near Banbury, Oxon.
DREWEATT, THOMAS	Newbury, Berks.
EGGINTON, DENYS...	150, Friar Street, Reading.
EGGINTON, JOHN	150, Friar Street, Reading.
FIELD, FRANCIS HAYWARD	11, King Edward Street, Oxford.
GALE, JOSEPH JOHN	Market Place, Wallingford.
GOTTO, FREDERICK EDWARD	Stoney Stratford, Bucks.
HABGOOD, HENRY CHARLES	Witney, Oxon.
HARRISON, JAMES THOMAS	Town Hall Offices, Buckingham.
HASLAM, DRYLAND	Friar Street Chambers, Reading.
HASLAM, DRYLAND, JUN. ...	Friar Street Chambers, Reading.
HOLIDAY, FREDERICK DEAN	Bicester, Oxford.
HOLIDAY, PERCY CAVE ...	Bicester, Oxford.
JONES, FRANCIS WILLIAM ...	2, Frewin Court, Corn Market St., Oxford.
KING, JOHN BUSBY	Albert Park, and 14, High St., Abingdon.
LIGHTFOOT, HENRY LE BLANC	Corpus Christi College, Oxford.
LITTLE, WILLIAM DAVIS ...	Middleton Stoney, Bicester.
MAXWELL, JOSEPH ARCHIBALD	South Bar, Banbury, Oxon.
MILLAR, WILLIAM GALT ...	Friar Street, Reading.
NEATE, ARTHUR WEBB ...	Albion House, Newbury, and Hungerford.
NORTH, GEORGE FREDERIC	Strathfield Saye, Mortimer, Berks.
PETO, JAMES WINDER	6, Market Place, Reading.
RICH, ROBERT	Didcot, Berks.
SAMUEL, WILLIAM JOHN ...	Newport Pagnell, Bucks.
SCOVELL, JOHN	29, St. Margaret's Road, Oxford.
SIMMONS, CHARLES	Henley-on-Thames.

Simmons, William Auker	Henley-on-Thames.
Todd, Richard	Englefield, near Reading.
Vernon, Arthur...	Borshams, High Wycombe, Bucks.
Watson, James Bruce ...	Estate Office, Shirburn, Wallingford.
Wigley, George Davys Edward	Winslow, Bucks.

Total, 41 Members.

(M) BEDFORD, ESSEX, HERTFORD, AND MIDDLESEX COMMITTEE.

Chairman.

The Hon. Edward Gerald Strutt,

Whitelands, Hatfield Peverel, Chelmsford, Essex.

Austin, Russell Gardiner	Hertford.
Ayres, Charles Pryor ...	14, High Street, Watford.
Balls, James Mayhew ...	Castle Hedingham, Essex.
Brown, Arthur Macdonald	Tring, Herts.
Brown, Frank John... ...	Tring, Herts.
Burnett, George John Mulcaster...	Elstree Cottage, Elstree, Herts.
Chancellor, Frederick ...	Chelmsford.
Child, Fred...	1, Station Road, New Barnet, Herts.
Christy, Archibald Ernest	6, Market Buildings, Chelmsford.
Collins, Charles Edwin ...	Royal Engineer Office, Colchester, Essex.
Couchman, Henry Boteler	Moor Park Estate Office, Rickmansworth.
Coverdale, Frederick John	Ingatestone Hall, Essex.
Crawter, John	Cheshunt, Herts.
Creswell, William Thomas	Barrack Reconstruction Office, Colchester, Essex.
Cumberland, Edward Anthony	Luton and Leighton Buzzard.
Duvall, John William ...	Hertford.
Eve, Herbert Trustram...	2, St. Paul's Square, Bedford.
Eve, John Richard	St. Paul's Square, Bedford.
Fenn, John	The Hall, Ardleigh, and 146, High Street, Colchester.
Fenning, Herbert Samuel	St. Paul's Square, Bedford.

Fields-Clarke, George Thomas	Estate Office, Southill Park, Biggleswade.
Foulkes, Septimus Giffard	Tring, Herts.
Franklin, Benjamin Belgrove	21, Market Hill, Luton, Bedfordshire.
Harding, Sidney Longhurst	St. Alban's, Herts.
Hasluck, Lancelot Gerald	Green Hill Park, New Barnet, Herts.
Heron, William Charles	Uxbridge, Middlesex.
Hilliard, George Edward	Chelmsford.
Hunt, Thomas	Baldock Street, Ware, Herts.
Kemp-Smith, James Frederick	Orsett, Essex.
Kemsley, Joseph William	Corn Exchange, Romford.
Martin, Alfred John ...	16, Duke Street, Chelmsford, Essex.
Merry, Arthur Walker	17, High Street, Leighton Buzzard.
Newman, Thomas Harry...	Rayne, Essex.
Nockolds, Martin	Saffron Walden, Essex.
Norman, James Maurice...	Uxbridge, Middlesex.
Pain, George Lloyd	35, Bedford Street, Woburn, Beds.
Parker, Charles Alfred	Maldon, Essex.
Rumball, Aubrey	St. Alban's, Herts.
Shilcock, James	Hitchin, Herts.
Stanford, Charles Maurice	23, High Street, Colchester.
Start, Joseph William ...	High Street, Colchester.
Surridge, Joseph Smith ...	Coggeshall, Essex.
Sworder, Hugh	High Street, Epping.
Taylor, Edward Fergusson	New Barnet, Herts.
Thurnall, John Edward...	Royston, Herts.
Trethewy, Henry	Silsoe, Ampthill, Beds.
Tutt, Edwin Thomas	Market Place, Ampthill, Beds.
Vaizey, John George ...	Bocking, Braintree, Essex.
Weall, John	38, High Street, Watford, Herts.
Whitaker, Ernest Victor	Gorsty Villa, St. Peter's Road, St. Alban's, Herts.
Woodman, Thomas Foster	32, St. Peter Street, St. Alban's.
Woods, Thomas	4 & 5, Church Parade, Hounslow, Middlesex.

Total, 53 Members.

(N) DEVON AND CORNWALL COMMITTEE.

Chairman.

GEORGE COBLEY SMYTH-RICHARDS, 6, Castle Street, Barnstaple.

BENSON, ROBERT ALAN ...	Duchy of Cornwall Office, Liskeard.
BODY, ARTHUR	Princess Chambers, Princess Sq., Plymouth.
BODY, JOHN BOND	Princess Chambers, Princess Sq., Plymouth.
BOURNE, ROBERT ELLIOTT ...	Elwell, Totnes.
BOWDEN, JOHN FRIENDSHIP	Bedford Chambers, Exeter.
COMMIN, FREDERICK JAMES	7, Bedford Circus, Exeter.
COOPER, JOHN GROVES ...	Bideford.
CORDEROY, ATHELSTANE ...	12, George Street, Plymouth.
DREW, HENRY ALBAN	15, Queen Street, Exeter.
DREW, HENRY	15, Queen Street, Exeter.
DREW, JOHN GOULD	15, Queen Street, Exeter.
DUDLEY, EDGAR	Bedford House, 24, Bedford St., Plymouth.
DYMOND, FRANCIS WILLIAMS	Exeter.
ELLIOTT, CHARLES	16, Ermington Terrace, Plymouth.
ELLIS, ALBERT EDWARD ...	Bedford Chambers, Exeter.
FOSTER, JOSEPH BURGESS ...	4, Cambridge Street, Plymouth.
FOX, FREDERICK RUSSELL ...	The Imperial Hotel, Barnstaple.
FROST, FREDERIC CORNISH	Teignmouth.
GREENWOOD, JOSEPH	Royal Engineer Office, Devonport.
JENKIN, ARTHUR PEARSE ...	Trewirgie, Redruth.
KITTOW, JOHN	West Holm, Launceston.
LETHBRIDGE, WALTER.	1, Leigham Villas, Plymouth.
LOCK, WILLIAM HENRY ...	Instow.
LOVEYS, ARTHUR CLAMPITT	Moretonhampstead.
LUCAS, JOHN ARCHIBALD ...	Guildhall Chambers, High Street, Exeter.
MICHELMOORE, ALFRED ...	Berry Pomeroy Estate Office, Totnes.
OSMOND, EDWARD	Oakford, Upton Pyne, Devon.
PARSONS, HENRY JOHN DONNE	Bamfylde House, Exeter.
PEARSE, WILLIAM	Stoliford, Modbury.
POWELL, CHARLES REGINALD EVENDEN	Okehampton Park Estate Office, Okehampton, Devon.
RENDELL, ARTHUR STEPHEN	Market Terrace, Newton Abbot.
RUNDLE, EDWARD COLLINS	Bedford Estate Office, Tavistock.
SCOTT - SMITH, ARTHUR COURTENAY...	10, Gandy Street, Exeter.
STAPLEDON, ERNEST ALLEN	Bridge Chambers, Bideford, North Devon.
STOOKE, JAMES	Courtenay Street, Newton Abbot.

TANNER, JOHN MELHUISH ...	Wembworthy.
TAYLOR, THOMAS WILLIAM HARRIS...	Estates Office, Killerton, Exeter, Devon.
THORNE, ARNOLD	Cross Street, Barnstaple.
THRING, DOUGLAS THEODORE	Granville Estate Office, Bude, N. Cornwall.
WARD, DANIEL ...	8, Courtenay Street, Plymouth.
WARD, FRANK	Burnville, Tavistock.
WARE, CHARLES EDWIN ...	Gandy Street Chambers, Exeter.
WHITE, ARTHUR JEFFREY...	Wrangaton Manor, South Brent, S. Devon.

Total, 44 Members.

(O) SOMERSET, GLOUCESTER, AND NORTH WILTS COMMITTEE.

Chairman.

EDWIN MAGGS HIPPISLEY, 4, Chamberlain Street, Wells.

ADDIE, PETER	Market Chambers, Nicholas Street, Bristol.
ANDERSON, ROBERT	The Barton, Cirencester.
ANDREW, THOMAS HAWKES	Williton, Somerset.
BAINES, MATHEW TALBOT ...	Wootton Bassett, Wilts.
BENNETT, THOMAS OATLEY ...	Bruton, Somerset.
BISHOP, CHARLES	Regent Circus, Swindon, Wilts.
BRINKWORTH, ROBERT EDWARD	St. Mary's Street, Chippenham.
BRUTON, HENRY WILLIAM ...	Albion Chambers, Gloucester.
COTTERELL, ALBERT PLAYER ISAAC	Scottish Buildings, 28, Baldwin St., Bristol.
DANIEL, HARRY AUGUSTUS HOOD	Hill End, Henbury, near Bristol.
EDWARDS, ARTHUR PHIPPEN	Hutton, near Weston-super-Mare.
FARWELL, FREDERICK GEORGE	11, Laura Place, Bath.
FERRIS, GEORGE	Milton Manor, Pewsey, Wilts.
HARLE, JOHN JOSEPH	Torworth Estate Office, Falfield, Gloucester.
HEARD, HERBERT	Shepton Mallet, Somerset.
HIPPISLEY, WILLIAM JOHN ...	12, Chamberlain Street, Wells.
JEANS, MARK	Marlborough, Wilts.
KNOWLES, HENRY	Linden Grove, The Spa, Gloucester.
MADGE, JOHN	Somerset House, Chard, Somerset.
MARSHALL, LIONEL HASLER	Chippenham, Wilts.
MUNDY, HERBERT...	Manvers Street, Trowbridge.

MUNRO, PHILIP	2, St. Stephen's Chambers, New Baldwin Street, Bristol.
MYLNE, WILLIAM JOHN HOME	Sabrina, Clevedon Rd., Weston-super-Mare.
NAPIER, HENRY BURROUGHES	Chippenham, Wilts.
OAKLEY, EDWARD BENJAMIN	Dulverton, Parkstone.
OLIPHANT, GEORGE A. J. ...	Chatley House, Norton St. Philip, near Bath.
PARSONS, FRANK DONISTHORPE...	Misterton, Crewkerne.
PARSONS, ROBERT MAURICE PETERS...	Misterton, Crewkerne.
PEARD, JOHN GRIGG	North Curry, near Taunton.
PRITCHETT, ELLIS HERBERT	Regent Circus, Swindon, Wilts.
RANSFORD, BENJAMIN HERBERT	14, Bennett Street, Bath.
SADLER, GEORGE WILLIAM ...	467, High Street, Cheltenham.
SCAMMELL, THOMAS	1, St. Stephen Street, Bristol.
SHUFFLEBOTHAM, JOHN HENRY	Staplegrove, Taunton.
SILCOCK, THOMAS BALL ...	14, Abbey Churchyard, Bath.
SMITH, HENRY HERBERT ...	Chippenham, Wilts.
SPACKMAN, CHARLES CHANTREY	6, Terrace Walk, Bath.
SPACKMAN, HENRY	6, Terrace Walk, Bath.
STURGE, ROBERT FOWLER ...	33, Corn Street, Bristol.
STURGE, WILLIAM	33, Corn Street, Bristol.
TREPPLIN, ERNEST C.	Wastern, Wooton Bassett, Wilts.
VILLAR, JAMES	1A, Cambray, Cheltenham.
WAINWRIGHT, C. RAWLINSON	Shepton Mallet.
WATKINS, ROBERT ARUNDEL	Castle Combe, Chippenham.
WISE, CHARLES DACRES ...	Toddington, Winchcomb, Gloucester.
WOOLER, WALTER HERNAMAN	Waterloo Street, Weston-super-Mare.

Total, 47 Members.

(P) HAMPSHIRE, DORSET, AND SOUTH WILTS COMMITTEE.

Chairman.

FREDERICK JOHN SMITH, 21, Portland Street, Southampton, and Basingstoke.

ALLEN, GEORGE	Strangways, Marnhull, Blandford, Dorset.
ARNOLD, FRANCIS	Chilland, Winchester, & Hambledon, Hants.
AUSTIN, RICHARD	Bishop's Waltham, Hants.
AUSTIN, RICHARD, JUN. ...	Bishop's Waltham, Hants.
BATH, FRED	Crown Chambers, Salisbury.
BIRD, JAMES BINFIELD... ...	West Cowes, Isle of Wight.

BLAKE, FREDERICK	130, Queen Street, Portsea, Hants.
BLIZARD, JOHN HENRY ...	Lansdowne House, Castle Lane, Southamp-
BURNETT, ALFRED ANDREW	2, High Street, Southampton. [ton.
BURNS, GAVIN JAMES ..: ...	R.E. Office, The Nothe, Weymouth.
CANNING, WILLIAM BROWNE	Salisbury.
CLIFTON, JAMES EDWARD ...	Swanage, Dorset.
COCKS, SAMUEL ROGER ...	5, St. Thomas's Street, Ryde.
COLEMAN, THOMAS EVERIT ...	Royal Engineer Office, Gosport.
COMBES, CYRUS	Tisbury, Wilts.
CRICKMAY, GEORGE RACKSTROW	St. Thomas' Street, Weymouth.
CRICKMAY, JOHN EDWARD ...	St. Thomas' Street, Weymouth. [Dorset.
DAY, GEORGE CARLETON ...	Estate Office, Woodbridge, Shaftesbury,
DUKE, EDWARD	Dorchester.
DUKE, HENRY	Dorchester.
EAMES, EDWARD	Compton, Winchester.
EVANS-VAUGHAN, HENRY ...	St. Peter's Chambers, Bournemouth, Hants.
ELFORD, JOHN	King Street, Poole.
ELLEN, FREDERICK CHARLES	Andover.
GATER, CALEB WILLIAM ...	Salisbury.
GOLDSMITH, DOUGLAS FLEET	Lavant Street, Petersfield, Hants.
GUDGEON, GEORGE EDWARD	Estate Agency Offices, Winchester.
HADDOCK, ROLAND	Richmond Chambers, Bournemouth, Hants.
HALL, ERNEST	57, Commercial Road, Portsmouth, Hants.
HANKINSON, THOMAS JAMES	Richmond Chambers, Bournemouth, Hants.
HANNEN, REGINALD ST. JOHN	The Cottage, Fordingbridge, Salisbury.
HARRIS, JAMES	Winchester.
HAWKER, HARRY EDWIN ...	St. Peter's Chambers, Bournemouth.
HERBERT, ALLAN	The Market Place, Andover.
HILL, WILLIAM BURROUGH	62, Above Bar, Southampton. [shot.
ISTED, SAMUEL EVELAND ...	Royal Engineer Office, North Camp, Alder-
JENNINGS, FITZ-LAURENCE PERCIVAL DUDLEY	Old Post Office Chambers, Bournemouth Hants.
KENT, GEORGE EDWARD .	Normanhurst, Cavendish Road, Southsea.
KING, THOMAS	Pembroke House, Portsmouth.
KING, SIR WILLIAM DAVID, D.L.	Stratford Lodge, Southsea.
LANE, ERNEST LACAN. ...	81, Old Christchurch Road, Bournemouth.
LEMON, JAMES	Southampton.
LYWOOD, EDWIN	Norman Court, Clatford, Andover.
MARVIN, ALBERT EDWARD	Marl Hill, Carisbrooke.
MITCHELL, GEORGE SHARMAN	Upper Adhurst, Petersfield, Hants.
NEWMAN, FRANCIS	Ryde, Isle of Wight.
NEWTON, THOMAS EDWIN ...	Bank Chambers, Winchester.
OAKLEY, EDWARD BENJAMIN	Westville, Parkstone, Dorset.
PATERSON, CHARLES	Canfor, Wimborne, Dorset.

Perkins, Water Frank ...	Portswood House, Southampton.
Rawlence, Ernest Alfred	Newlands, Salisbury.
Rawlence, James Edward	The Canal, Salisbury.
Raynbird, Hugh Edward	Basingstoke, Hants.
Rebbeck, Edward Wise ...	Stafford Lodge, Bournemouth.
Rebbeck, Thomas Warren	Gervis Place, Bournemouth.
Richards, George Edward	Stour Lodge, Wimborne.
Riddett, William Hammond	Townhall Chambers, Ryde.
Rigden, Francis	Salisbury.
Robey, Robert	Oaklands, East Tytherley, near Romsey.
Robinson, Edmund Arthur	Lee-on-the-Solent, Gosport, Hants.
Roker, Mitchel John ...	Snowdenham, Branksome Park, Bournemouth
Rutherford, James Augustine	Highclere Park, near Newbury.
Sanctuary, Campbell Fortescue Stapleton	Mangerton, Melplash, Dorset.
Saunders, Theodore Ridley	Belgrave Chambers, Ventnor.
Senior, Harry Samuel ...	Sturminster Newton, Dorset.
Simmons, Charles Franklin	Basingstoke, Hants.
Smith, George Alfred ...	78, Parchment Street, Winchester.
Squarey, Elias Pitts ...	The Moot, Downton, Salisbury.
Squarey, Newell William Pitts	Bemerton, Salisbury.
Stallard, Alfred Edwin...	West Street, Havant.
Stopher, Thomas	Winchester.
Studdy, Thomas Edward	Estate Office, Basing Park, Alton.
Tory, John Edward	Dorchester, Dorset.
Vernon-Inkpen, George Charles	75, King's Road, Southsea.
Wallington, John Arthur Beach	Basingstoke, Hants.
Walmisley, Joseph William	7, King's Terrace, Southsea.
Warner, Henry	Faringdon, Alton, Hants.
Waters, Edward	The Canal, Salisbury.
Watson, Alfred	Ripley, Norwich Avenue, Bournemouth.
Way, Henry James	109, Lower St. James's Street, Newport, Isle
Wells, William Howley ...	Estate Office, Evershot. [of Wight.
Westbury, George Henry	The Knoll, Andover.
Wetherall, Harry Lancaster	Brachlyn, Winchfield.
Wigram, Reginald Spencer	1, Burbage Terrace, Wimborne, Dorset.
Wilbraham, Edward Sidney	Estate Office, St. Giles, Salisbury.
Woolley, John Turton ...	Salisbury.
Young, Charles	Alton, Hants.
Young, Harry Austin Lindsey	The Johnstone Estate Office, Weymouth.

Total, 89 Members.

(Q) KENT COMMITTEE.

Chairman.

GEORGE LANGRIDGE, The Broadway, Tunbridge Wells.

AMOS, FRANK	3, The Parade, Canterbury.
ASHENDEN, LEONARD THOMAS	The Kent Fire Office, 29, Westgate, Canterbury.
BALL, WILLIAM ALFRED ...	Rosslyn, a nsdowne Road, Bromley.
BARTON, HARRY HOWELL ...	17, Guildhall Street, Folkestone.
BILLINGHAM, JOHN ALFRED LAWRANCE	Royal Engineer Office, Shorncliffe, Kent.
BOULTING, FREDERICK EDWARD	Napier Lodge, Minster, Kent.
BRACKETT, ARTHUR WILLIAM	27, High Street, Tunbridge Wells.
BRACKETT, FREDERICK HENRY	27, High Street, Tunbridge Wells.
BRACKETT, WILLIAM	27, High Street, Tunbridge Wells.
BURROWS, ALFRED JOHN ...	41, Bank Street, Ashford.
CHILD, HENRY JOHN	Royal Engineer Office, Sheerness.
COBB, HERBERT MANSFIELD	Higham.
COBHAM, CHARLES	The Shrubbery, Gravesend.
COBHAM, GEORGE WILLIAM	1 and 3, Edwin Street, Gravesend.
COOKE, HENRY	Watts Avenue, Rochester.
COX, WALTER THEODORE ...	Belmont, College Road, Maidstone.
CRONK, EDWYN EVANS ...	Sevenoaks.
CRONK, FRANK	Sevenoaks.
CRONK, WILLIAM HENRY ...	Sevenoaks.
DANN, HENRY	Dartford.
DAY, WILLIAM, JUN.	23, High Street, Maidstone.
ELGAR, J. EDWARD	Crockshard, Wingham.
FINN, ADOLPHUS	High Street, Lydd, and Rye.
FINN, ARTHUR GEORGE ...	The Deanery, Chartham.
FINN, FRED. JUN....	Shepherd's Hill, Selling, Faversham.
FINN, GEORGE WILLIAM ...	Westwood Court, Faversham.
FREEMAN, SYDNEY	The Broadway, Tunbridge Wells.
FRY, GEORGE FREDERICK ...	46, London Road, Dover.
GROVER, PHILIP GORDON ...	Boveney, Sandgate Road, Folkestone.
HAMMOND, ROBERT WILLIAM	Roy. Engineer Office, Inner Lines, Chatham.
HARVEY, JOHN JAMES SAYER	80, Castle Street, Canterbury.
HAYWARD FREDERCIK GEORGE	Dover.
HAYWARD, HENRY	Dover.
HINDS, HENRY	57, Queen Street, Ramsgate.
HOBBS, JOHN	Estate Office, Ashford.

Homan, Franklin George...	184, Eastgate, Rochester.
Homan, Hubert Franklin...	184, Eastgate, Rochester.
Honeyball, Fred. Thomas	Deal.
Hooper, Cecil Henry... ...	Highlands, Swanley.
Jackson, William Tress ...	117, High Street, Sittingbourne.
Jennings, William Joseph...	4, St. Margaret's Street, Canterbury.
Kerl, William James ...	49, Copers Cope Road, Beckenham.
Kidwell, John	St. Margaret's Bank, Rochester.
Latter, Hugh Robinson ...	The Town Hall, Bromley.
Lepper, John Harrage ...	10, Market Square, Bromley.
Lucas, William Edward ...	Bexley.
Mann, Jabez	Sevenoaks.
Neame, Frederick, Jun. ...	Macknade, Faversham.
Page, Stanley Hatch... ...	1, Harbour Street, Ramsgate.
Payne, Frederick	10, Market Square, Bromley.
Phillips, Frederick Hamilton	Beechcroft, Temple Ewell, near Dover.
Prall, Herbert Alexander	Martin's Bank Chambers, Dartford.
Prall, Herbert Edward ...	150, Eastgate, Rochester.
Roper, William	49, Mount Pleasant Rd., Tunbridge Wells.
Rudkin, Arthur John ...	St. Ann's, Bromley.
Scriven, Charles Herbert	Agency Office, Thong, Gravesend.
Seymour, Richard Arthur Hamilton	46, Earl Street, Maidstone.
Smith, Frank Braybrooke	South Eastern Agricultural College, Wye.
Smith, George	Boughton Monchelsea.
Strouts, Lewis Herbert ...	Belgrave Place, St. Mary Cray.
Temple, Frederick Wilson	48, Sandgate Road, Folkestone.
Tompsett, William Robert	Meadhurst, Tonbridge, and Paddock Wood.
Tootell, Charles	13, King Street, Maidstone.
Tootell, Joseph	13, King Street, Maidstone.
Vinten, Harold Bertram...	72, High Street, Ramsgate.
Wacher, Thomas...	Upper Bridge Street, Canterbury.
Waring, Herbert Fuller...	46, Earl Street, Maidstone.
Waterman, Alfred James...	20, Week Street, Maidstone.
Waterman, James	Tenterden.
Wood, William	Ivymeath, Snodland, Rochester.
Young, Thomas John	South Eastern Agricultural College, Wye.

Total, 72 Members.

(R) SUSSEX COMMITTEE.

Chairman.

JAMES WOODHAMS, Havelock Road, Hastings.

AUSTEN, FRANK	Marling Place, Wadhurst.
BANNISTER, THOMAS	Limehurst, Hayward's Heath.
BEARD, EDWIN THOMAS ...	Marazion, West Hill, St. Leonard's-on-Sea, Sussex.
BOWLEY, JOHN CROSS	Norman Terrace, Hastings.
BURTENSHAW, ALBERT... ...	Hailsham.
CARD, HENRY CURTIS	North Street, Lewes.
CHASEMORE, PHILIP	Ashleigh, Horsham.
COLGATE, THOMAS...	Sheffield Park, Uckfield.
DAVEY, HENRY THOMAS ...	Cumberland Villa, St. Anne's, Lewes.
DENNISON, JOHN W.	28, Upperton Gardens, Eastbourne.
DRAY, ALFRED	Town Hall Chambers, Hastings.
GARDNER, GILBERT	Ifield Court, Crawley.
HOGBEN, FRANCIS NEALE ...	East Street, Chichester.
HOGBEN, THOMAS CECIL ...	Highleigh, Sidlesham, near Chichester.
HOWARD, HARRY	Town Offices, Littlehampton.
HUDSON, EDWARD WILLIAM	Hove.
INGRAM, WALTER FIELDE ...	2, St. Andrew's Place, Lewes, & 17, Preston Street, Brighton.
JENNER, WILLIAM...	1, Western Road, Hove, Brighton.
KING, FRANK HULME	Horsham.
MARTIN, THOMAS	34, Elphinstone Road, Hastings.
MAY, FRANCIS JOHN CHARLES	Town Hall, Brighton.
MORRIS, HERBERT	Lewes.
OGILVIE, ROBERT MATHEWSON	10, Boltro Road, Hayward's Heath.
PARRIS, CHARLES JOHN ...	Groombridge, Sussex.
PARSONS, FREDERICK CECIL	163, North St., and 9, Marine Parade, Brighton.
POWELL, HUBERT JOHN ...	Hill Lodge, Lewes.
POWELL, REGINALD HENRY...	St. Swithun's Lane, Lewes.
REEVE, KINGSNORTH	High Street, Rye.
SMITH, SIDNEY	Southwater, Horsham.
TAYLOR, MATTHEW	Northchapel, Petworth.
TURNER, CHARLES...	Oakhurst, East Grinstead.
WATSON, HERBERT EDWARD	New Grove, Petworth.
WATSON, HERBERT JOHN ...	Petworth, Sussex.

WELCH, FREDERICK WILLIAM	168, North Street, Brighton, and Hove.
WILKINSON, THOMAS	168, North Street, Brighton, and Hove.
WYATT, OLIVER NEWMAN ...	East Street, Chichester.

Total, 37 Members.

(S) NORTH WALES AND RADNOR COMMITTEE.

Chairman.

JOHN EDWARD POUNDLEY, Kerry, Newtown, Montgomeryshire.

ADDIE, WILLIAM FORRESTER	Powis Castle Estate Office, Welchpool, Montgomeryshire.
CLOUGH, RICHARD CHARLES BUTLER	Ty Maur, Denbigh.
DEW, WILLIAM ARTHUR ...	Wellfield House, Bangor.
GILLART, DAVID	Towyn, Merionethshire.
GRANT, JAMES	Penrallt, Llanidloes, Montgomeryshire.
GUNTER, JAMES	Estate Office, Glasbury, Radnorshire.
HOOPER, EDGAR WILFRED ...	Conway, N. Wales.
JONES, WALTER BUTLER CLUOGH	Mynydd, Ednyfed, Criccieth, Carnarvonshire.
JONES, WILLIAM EDWARD ...	Anglesey Estate Office, Craig, Llanfair P.G., Anglesey.
MCINTYRE, PETER	Gwydyr Ucha, Llanrwst, N. Wales.
MACNICOLL, DOUGLAS HENRY	Derwas, Abergele, Denbighshire.
OWEN, WILLIAM SCOTT ...	Cefngwifed, near Newtown, Montgomeryshire.
PICKERING, WILLIAM CLOVES	Rhewl House, Mostyn, Flintshire.
PORTER, JOHN MERRY... ...	Estate Office, Colwyn Bay, N. Wales.
SWETENHAM, HENRY	Estate Office, Hawarden.
WILLIAMS, JOHN	Gwernhefin, Bala, Merionethshire.

Total, 17 Members.

(T) IRISH LAND AGENTS' COMMITTEE.

Chairman.

ALFRED HENRY WYNNE, Collon, Drogheda.

ABBOTT, JOSEPH	30, Grafton Street, Dublin.
ADAIR, JOHN OLPHERT ...	Ballynoe, Tullow, Co. Clare.
ALEXANDER, CHARLES MURRAY, LIEUT.-COL.	Termon, Carrickmore, Co. Tyrone.
ALEXANDER, HENRY GEORGE SAMUEL, MAJOR	1, Gosford Place, Armagh.
ALEXANDER, ROBERT ARTHUR	Glenmore, Drogheda, Co. Louth.
ANDERSON, ALEX. CAREW ...	Killmurry, Waterford.
ARMSTRONG, ALEXANDER MOORE, CAPT.	Culmore House, Kilrea, Co. Londonderry.

ARMSTONG, ELLIOTT GRAHAM	Mount Pleasant Avenue, Ballinasloe, Co. Galway.
BAILLIE, JOHN ROBERT... ...	Estate Office, Ballina, Co. Mayo.
BALDWIN, CHAMBRÉ CORCOR THOMAS	7, Leinster Street, Dublin.
BARNES, WILLIAM ARTHUR...	Westland, Kells, Co. Meath.
BARRINGTON, JOHN BEATTY	Barrington Street, Limerick.
BARTON, HENRY DUPRÉ MALKIN	The Bush, Antrim.
BARTON, ROBERT CULLEY ...	Mosstown, Streamstown, Co. Westmeath.
BEAMISH, WILLIAM HENRY...	2, South Mall, Cork.
BIGGER, JOHN JAMES EASTWOOD	Fairymount, Dundalk.
BLACKLEY, TRAVERS ROBERT	Drumbar, Cavan.
BLAKENEY, ROBERT EDWARD	Creg Clare, Ardrahan, Co. Galway.
BOWEN, EDWARD FERGUSON	Glendine, Arthurstown, Waterford.
BOYD, WILLIAM HENRY ...	Ballymacool, Letterkenny.
BRADSHAW, ROBERT MACNEVIN	25, South Frederick Street, Dublin.
BRIDGE, HENRY POWELL ...	Racket Hall, Roscrea, Tipperary.
BROADLEY, EDWARD BARRY	73, South Mall, Cork.
BROOKE, ARTHUR	White House, Killybegs, Co. Donegal.
BROWNE, ERNEST H.	Brookfield, Tullamore.
BROWNLOW, CHARLES	Mountstewart, Newtownards, Co. Down.
BROWNLOW, CLAUDE	Estate Office, Coolderry, Carrickmacross, Co. Monaghan.
BURKE, HENRY ANTHONY ...	Drumkeen, Ballinamallard, Co. Fermanagh.
BURKE, WILLIAM CREAGHE...	Clonne, Ballinrobe, Co. Mayo.
BUTLER, WALTER SELBY ...	Green Mount, Castle Bellingham, Co. Louth.
CARROLL, JOSEPH HATTON ...	80, South Mall, Cork.
CARROLL, THEODORE FREDERICK	80, South Mall, Cork.
CARSON, WILLIAM B.	Bedford House, Balbriggan, Co. Dublin.
CHATTERTON, ROBT. SMITH	Belmount, Raheney, Co. Dublin.
COCHRANE, JOHN	Combermore, Lifford, Co. Donegal.
COOTE, ORLANDO ROBERT ...	Auburn, Athlone.
COOTE, STANLEY VICTOR ...	Carrowroe Park, Roscommon, and The Orchard House, Wargrave, Berks.
CORDNER, CLEMENT KENNEDY	Estate Office, Antrim.
CREAGH, ARTHUR GETHIN ...	Mallow, Co. Cork.
CROSBIE, JAMES DAYROLLES	Gurtenard, Listowel, Co. Kerry.
DARLEY, EDMUND SANDERS	5, College Green, Dublin.
DARLEY, HENRY PONSONBY SHAW	Estate Office, Carrick-on-Shannon, Co. Leitrim.
DEANE, GEORGE B.	Balla Lodge, Balla, Co. Mayo.

DENNY, FRANCIS MCGILLYCUDDY	17, Denny Street, Tralee.
DICKINSON, CHARLES	36, South Frederick Street, Dublin.
DOLLING, CALEDON JOSIAS RADCLYFFE	3, Lower Pembroke Street, Merrion Square, Dublin.
DOPPING, JAMES HENRY, COL.	10, Trafalgar Terrace, Monkstown, Dublin.
EDGEWORTH, THOMAS NEWCOMEN	Kilshrewly, Edgeworthstown.
ELLIS, ERNEST FRANCIS LESLIE	Estate Office, Bantry, Co. Cork.
EVANS, WILLIAM	Gillardstown House, Killucan.
FARRELL, EDWARD FRANCIS	Moynalty, Kells, Co. Meath.
FETHERSTONHAUGH, THEODORE	Grouse Lodge, Moate, Co. Westmeath.
FITZGERALD, JAMES H. B. PENROSE	The Estate Office, Middleton, Co. Cork.
FITZGERALD, PETER DAVID...	66, George Street, Limerick.
FITZGERALD, ROBERT JOHN	Ballyard House, Tralee.
FITZHERBERT, HENRY CORRY	Millbrook, Abbeyleix, Queen's County.
FRANKS, MATTHEW HENRY	Westfield, Mountrath, Queen's County.
FRANKS, MATTHEW HENRY JUN.	Westfield, Mountrath, Queen's County.
FORBES, ARTHUR	Earls Vale, Cavan.
FRENCH, SAVAGE	2, South Mall, Cork.
FREND, CAUSABOND WILLIAM	Parsonstown, King's County.
FREND, HENRY	Mitchelstown, Co. Cork.
GALBRAITH, HUGH	21, Westland Row, Dublin.
GARRETT, JAMES HUGH MOORE	Corriewood, Castlewellan, Co. Down.
GARVEY, TOLER R.	Thornvale, Moneygall, King's County.
GARVEY, TOLER ROBERT, JUN.	Estates Office, Parsonstown.
GODLEY, ARCHIBALD	Killygar, Killeshandra.
GLOSTER, THOMAS EDWARD	Collon, Co. Louth.
HAMILTON, ARTHUR	40, Lower Diminick Street, Dublin.
HAMILTON EDWARD CHETWOOD, MAJOR	Woodstock Estate Offices, Inistioge.
HARDMAN, EDWARD CHAMBRÉ	14, Molesworth Street, Dublin.
HARVEY, JAS. G. MOREWOOD	Northern Bank Buildings, Londonderry.
HEARN, CHARLES RICHARD...	Armaghroe House, Caledon, Co. Tyrone.
HEWSON, GEORGE RAWDON MAURICE	Dromahair, Co. Leitrim.
HODSON, GILBERT NEVILLE...	Hollybrooke, Bray, Co. Wicklow.
HODSON, RICHARD EDMOND	Coolfadda House, Bandon, Co. Cork.
HOLMES, WILLIAM EDEN ...	69, Dann Street, Dublin.
HOSFORD, EDWARD HENRY POE	76, George Street, Limerick.

HUMPHREYS, DANIEL PEARD	80, South Mall, Cork.
HUNT, WILLIAM LEWIS ...	83, George Street, Limerick.
HUNT, WILLIAM POWER ...	81, George Street, Limerick.
HUSSEY, MAURICE T. G. ...	Loughglynn House, Castlerea.
HUSSEY, SAMUEL MURRAY...	18, Elvaston Place, S.W., and Edenburn, Gortalea, Co. Kerry.
HUTCHINGS, SAMUEL NEWBURGH	Ardnagashel, Bantry, Co. Cork.
IRVINE, HY. LIEUT.-COL. ...	Oatlands, Omagh, Co. Tyrone.
JAMESON, ROBT. WILLIAM ...	Estate Office, Foynes, Co. Limerick.
JOHNSON, JOCELYN OTWAY...	Kilganon, Enniskerry.
JOHNSTONE, JOHN BRETT ...	Ballycastle, Co. Antrim.
KEANE, MARCUS	Beech Park, Ennis, Co. Clare.
KELLY, RICHARD HENRY ...	21, The Mall, Waterford.
KINCAID, JAMES STEWART ...	7, Leinster Street, Dublin.
KINCAID, JOSEPH WESTBY ...	7, Leinster Street, Dublin.
KNIGHT, MAURICE CHARLES	The Grange, Ballymena, Co. Antrim.
KNOX, ALBERT FREDERIC ...	Estate Office, Ballina, Co. Mayo.
KNOX, ALBERT HENRY ...	Ballina, Co. Mayo.
KNOX, EDWARD ERNEST ...	8, Milward Terrace, Bray.
KNOX, ERNEST HENRY ...	Rahans, Ballina, Co. Mayo.
KOUGH, THOMAS	Estate Office, Kilkenny.
L'ESTRANGE, CHRISTOPHER ARTHUR	Estates Office, Sligo.
LLOYD, AVERALL	Benburb, Moy, Co. Tyrone.
M'CLINTOCK, ARTHUR... ...	Downshire Office, Hillsborough, Co. Down.
MCCLINTOCK, CHARLES EDWARD, LIEUT.-COL.	Glendaragh, Crumlin, Co. Antrim.
MCCULLAGH, JAMES W. ...	Glasslough,, Co. Monaghan.
MCDONALD, ALLAN	Glenarm, Co. Antrim.
MAHON, GEORGE GILBERT...	The Rent Office, Ahascragh, Co. Galway.
MARMION, THOMAS HENRY	Estates Office, Cappoquin.
MAUDE, ANTHONY FRITZ ...	Drumadrery, Irvinestown, Co. Fermanagh.
MAUDE, CHRISTOPHER HUGH	Lenaghan, Enniskellen, Co. Fermanagh.
MAUDE, MAURICE CEELEY...	Lenaghan, Enniskellen, Co. Fermanagh.
MAUNSELL, RICHARD EDWARD	9, Ely Place, Dublin.
MAXWELL, HENRY PERCEVAL	Landsdown Lodge, Kenmare, Co. Kerry.
MURPHY, JAMES FRASER, MAJOR	Estate Office, Boyle, Co. Roscommon.
NEWPORT, GEORGE BELLINGHAM	Rockview, Inistioge, Co. Kilkenny.
NUNN, WILLIAM BOLTON ...	George Street, Wexford, and Castlebridge.
OSBORNE, CHARLES W. ...	Rosnaree, Slane, Co. Meath.
OWEN, ARTHUR JOHN	Shanvaghey, Ballacolla, Queen's County.
PENROSE, JAMES EDWARD ...	Estate Office, Lismore Castle, Lismore.
PENROSE, WILLIAM ROBERT	Estate Office, Rose Lane, Waterford.

POWELL, ROBERT	Estate Office, Westport, Co. Mayo.
PURCELL, WILLS W.	Dromore, Mallow.
QUIN, RICHARD	9, Crosthwaite Park W., Kingstown.
QUIN, WILLIAM THOMAS CUFFE	Kilbeggan, Co. Westmeath.
ROBERTS, EDWARD USSHER	The Rent Office, Longford.
ROBINSON, HENRY ARTHUR	Roundstone, Galway.
ROBINSON, JAMES DODWELL, MAJOR	Seamount, Sligo.
ROBINSON, RICHD. ST.GEORGE	Seamount, Sligo.
ROBINSON, WILLIAM GODFREY	Roughan Park, Dungannon, Co. Tyrone.
ROCHFORT, WILLIAM	Cahir Abbey, Cahir, Co. Tipperary.
ROE, WILLIAM JAMES	11, Westland Row, Dublin.
ROGERS, HARRY	The Hill, Monaghan.
RUTTLEDGE, FRANCIS	Coolbawn, Enniscorthy.
RUTTLEDGE, THOMAS HENRY BRUEN	42, North Great George Street, Dublin.
SANDERS, CHARLES STEWART	Sanders Park, Charleville.
SANDERS, ROBERT MASSY DAWSON	Sanders Park, Charleville, Co. Cork.
SCOTT, JOHN RUSSELL	60, Mountjoy Square, Dublin.
SCOTT, JOHN WILLIAM... ...	Roslevan, Ennis, Co. Clare.
SMITH, GEORGE YOUNG ...	Rocklow, Omagh, Co. Tyrone.
SMITH, SIDNEY EDWARD ...	Derryvale, Roscrea.
STEWART, EDWD. P., CAPT.	21, Westland Row, Dublin.
STEWART, GEORGE FRANCIS	Summerhill, Killiney, Co. Dublin.
STEWART, WILLIAM THOMAS	6, Leinster Street, Dublin.
STOKES, FRANK	15, Alma Road, Monkstown, Co. Dublin.
STOKES, RICHARD	60, Dawson Street, Dublin.
STOPFORD, THE HON. GEORGE FREDERICK WILLIAM	The Estate Office, Gorey, Co. Wexford.
STUDDERT, R. R.	Hazlewood, Quin, Co. Clare.
SWINEY, WILLIAM D.	Moyagh, Ramelton, Co. Donegal.
SYNGE, EDWARD	Rathe, Kingscourt, Co. Cavan.
TAILYOUR, ALEXANDER ...	Estate Office, Arklow, Co. Wicklow.
TALBOT-CROSBIE, WM. DAVID	Cloonca, Mount Talbot, Roscommon.
TANNER, KEARNS DEANE, MAJOR	14, Upper Merrion Street, Dublin.
TATLOW, JOHN GARNETT ...	14, South Frederick Street, Dublin.
TATLOW, TISSINGTON WILLIAM GARNETT	14, South Frederick Street, Dublin.
TAYLOR, J. GODFREY L. ...	Grangeville, Fethard, Co. Waterford.
TENER, EDWARD SHAW ...	The Square, Loughrea, Co. Galway.
TISDALL, HY. CHICHESTER...	21, Lincoln Place, Dublin.
TOWNSEND, CHARLES EYRE COOTE	16, Dawson Street, Dublin.

Townsend, Robert Uniacke Fitzgerald	18, South Mall, Cork.
Townshend, Charles Loftus	15, Molesworth Street, Dublin.
Townshend, James Richard Clarke	23, South Frederick Street, Dublin.
Townshend, Thomas Courtney	23, South Frederick Street, Dublin.
Townshend, Thomas Loftus	15, Molesworth Street, Dublin.
Trench, Arthur	Dromkeen, Cavan.
Trench, Geo. Frederic ...	Estate Office, Ardfert, Co. Kerry.
Trench, James Currie ...	Coolgraney, Dundrum, Co. Dublin.
Trench, Philip Francis Chenevix	30, Kildare Street, Dublin.
Turner, Frederick Adolphus Brabazon	The Estate Office, Gorey.
Tyndall, Albert Henry ...	Ballyanne House, New Ross, Co. Wexford.
Tyrrell, Garrett Charles	Ballinderry, Carbery, Co. Kildare.
Vandeleur, Cecil Ernest...	Estate Office, Mallow, Co. Cork.
Vereker, Henry Robert...	Summerville, Westport, Co. Mayo.
Vernon, Arthur Pomeroy	1, Wilton Place, Dublin.
Vernon, Fane	Pembroke Estate Office, Wilton Place, Dublin.
Verschoyle, William Henry Foster	Woodley, Dundrum.
Ward, Somerset, The Hon.	Isle o' Valla House, Downpatrick.
Warnock, Thomas Archibald	Portaferry, Co. Down.
Warren, Richard Lane ...	61, South Mall, Cork.
Watson, Arthur B.	2, Seapoint Terrace, Monkstown, Co. Dublin.
Watson, William James ...	Benvenue, Rostrevor, Co. Down.
Welply, James	65, George Street, Limerick.
Webb, Charles	Rahilly, Sligo.
White, Arthur	99, George Street, Limerick.
White, Richard...	Johnstown House, Enfield, Co. Meath.
Willis, Gilbert de Laval	4, Kildare Street, Dublin.
Willis, Henry de Laval...	Ennis, Co. Clare.
Wilson, Arthur Jn. de Courcy	Garvagh, Edgeworthstown.
Young, George Lawrence	Randalstown, Co. Antrim.
Young, Owen Walter O'Grady	Harristown, Castlerea, Co. Roscommon.

Total, 188 Members.

(U) SCOTTISH COMMITTEE.

Chairman.

THOMAS BINNIE, 207, Hope Street, Glasgow.

ADAM, THOMAS	27, Union Street, Glasgow.
ANDERSON, ROBERT	95, Bath Street, Glasgow.
AITKEN, JOHN MALCOLM ...	Castlemilk Estates Office, Norwood, Lockerbie, Dumfriesshire.
BARR, JAMES...	221, West George Street, Glasgow.
BARR, JAMES...	Whiteshaw, Carluke, Lanarkshire.
BATHGATE, CHARLES S. ...	26, Bellgrove Street, Glasgow.
BEATTIE, WILLIAM HALDEN...	11, Glencairn Crescent, Edinburgh.
BELL, ANDREW WALKER ...	Corporation Buildings, Dunfermline.
BINNIE, THOMAS, JUN. ...	207, Hope Street, Glasgow.
BLAIR, ALEXANDER	198, West George Street, Glasgow.
BROWN, CHARLES...	Kerse Estate Office, Falkirk, Stirlingshire.
BROWN, GEORGE	Hilton of Culsh, New Deer, Aberdeenshire.
BROWN, WILLIAM	138, West Regent Street, Glasgow.
BRYDEN, ROBERT A.	212, St. Vincent Street, Glasgow.
BURNET, FRANK	180, Hope Street, Glasgow.
CONNOR, GEORGE HARRY ADAMS	Estates Office, Longniddry, N.B.
COPLAND, WILLIAM ROBERTSON	146, West Regent Street, Glasgow.
CULLEN, ALEXANDER	Clyde Street, Motherwell, N.B.
CUNNINGHAM, ROBERT... ...	Glen Douglas, Jedburgh, Roxburghshire.
CURROR, JOHN FORTUNE ...	74, George Street, Edinburgh.
DANSKIN, ALEXANDER BROWN	105, West George Street, Glasgow.
DANSKIN, JOHN	241, West George Street, Glasgow.
DAVIDSON, CHARLES	Terrace Buildings, Paisley, Renfrewshire.
DAVIDSON, JAMES INGLIS ...	Sangton Mains, Edinburgh, and 175, West George Street, Glasgow.
DUKE, FREKE GUY RASHLEIGH	Braehead, Kilmarnock.
FORTUNE, GEORGE ROBERT	Charleton Estate Office, Colinsburgh, Fife, N.B.
FRASER, THOMAS SMELLIE	209, St. Vincent Street, Glasgow.
FRASER, WILLIAM...	209, St. Vincent Street, Glasgow.
FYFE, JOHN WILLIAM	221, West George Street, Glasgow.

GILCHRIST, JOHN	70, Wellington Street, Glasgow.
GILLESPIE, JOHN	Blackhall, Paisley, Renfrewshire.
GLENDINNING, GEORGE ROBERT	Hatton Mains, Kirknewton, Midlothian.
HAMILTON, ROBERT	Lands Valuation Office, Greenock.
HART, JOHN	Cowie Mains, Stonehaven, Kincardineshire.
HART, PATRICK CAMPBELL, A.M.I.C.E.	134, St. Vincent Street, Glasgow.
HENRY, JAMES	Lands Valuation Office, City Chambers, Glasgow.
HILL, THOMAS NELSON... ...	180, Hope Street, Glasgow.
HOWATT, WILLIAM	146, Buchanan Street, Glasgow.
JOHNSTONE, JAMES	Alloway Cottage, Ayr, Ayrshire.
KIRKWOOD, CHARLES	67, West Regent Street, Glasgow.
KNOX, ALEXANDER	53, Bothwell Street, Glasgow.
LAING, DAVID TAYLOR ...	20, Bridge Street, Glasgow.
LAING, JOHN...	20, Bridge Street, Glasgow.
LAMMIE, GEORGE...	138, Hope Street, Glasgow.
LAWRENCE, PETER	50, Frederick Street, Edinburgh.
LOCKHART, PETER...	Estates Office, Edenhall, Langwathby, Cumberland, and Blackwood House, Ecclefechan, Dumfriesshire.
LOGAN, JAMES	Coltness, Wishaw, Lanarkshire.
MACCALLUM, ALEXANDER DUNCAN	12, St. Vincent Street, Glasgow.
MCCALLUM, JAMES	Town Hall, Motherwell, Lanarkshire.
MACDONALD, RANALD	Clung Castle, Aberdeen.
MACDONALD, RANALD RODERICK	16, Union Terrace, Aberdeen.
MACDOUGALL, ROBERT ...	138, West Regent Street, Glasgow.
MACKAY, WILLIAM	Freswick Estate Office, Thurso, Caithnessshire.
MACKENZIE, DONALD FALCONER	Estate Office, Morton Hall, Liberton, Midlothian.
MCLEAN, DONALD	Dunrobin Estate Office, Golspie, Sutherlandshire.
MACLENNAN, WILLIAM ...	Grainbank, Kirkwall, Orkney Islands.
MACPHERSON, WILLIAM ...	Montrose Estate Office, Catter House, Drymen, Stirlingshire.
MAKINS, WILLIAM ALEXANDER	79, West Regent Street, Glasgow.
MARWICK, THOMAS PURVES	43, York Place, Edinburgh.
MUNRO, DANIEL	39, Hope Street, Glasgow.
MURDOCK, ROBERT	91, Maxwell Road, Glasgow.
MURRAY, GILBERT	Orchardlee, Girvan, Ayrshire.
MURRAY, JOHN CAMPBELL ...	Pollock Estate Office, 53, Bothwell, Street, Glasgow.

MURRAY, JOSEPH	Camperdown Estates Office, Dryburgh, Lochee, Forfarshire.
MURRAY, WILLIAM WATSON	Catter House, Drymen, Stirlingshire.
PURDIE, ANTHONY...	241, West George Street, Glasgow.
ROBERTSON, WALTER WOOD	3, Parliament Square, Edinburgh.
ROBB, WILLIAM JOHNSTON...	53, Bothwell Street, Glasgow.
SANDFORD-THOMPSON, WILLIAM JAMES	Balmanno, Marykirk, Kincardineshire.
SCOTT, ROBERT	115, Wellington Street, Glasgow.
SHARP, JOHN GRANT	74, Buchanan Street, Glasgow.
SIMPSON, GEORGE	Town Hall, Leith, Edinburgh.
SMELLIE, GEORGE	167, St. Vincent Street, Glasgow.
SMELLIE, THOMAS DAVIES ...	209, St. Vincent Street, Glasgow.
SPROAT, ROBERT	Lennox Plunton, Kircudbright.
STEVENSON, ALLAN	14, Cathcart Street, Ayr, N.B.
TANNAHILL, ROBERT DUNLOP	Lands Valuation Office, Kilmarnock.
TAYLOR, ROBERT	70, Bath Street, Glasgow.
TURNER, JOSEPH HARLING...	Portland Estate Offices, Kilmarnock.
WALKER, GEORGE JAMES ...	3, Golden Square, Aberbeen.
WALKER, JOHN	74, Bath Street, Glasgow.
WALLACE, THOMAS DOUGLAS	Callendar Park, Falkirk, Stirlingshire.
WALLACE, WILLIAM SYDNEY SMITH	"Bardeunock," Moniaive, Dumfriesshire.
WHYTE, JOHN...	City Chambers, Glasgow.
WILSON, JAMES	26, Renfield Street, Glasgow.
WINNING, DOUGLAS CAMPBELL WILLS...	Municipal Buildings, Broughty Ferry, N.B.
YUILLE, ROBERT	58, South Portland Street, Glasgow.

Total, 88 Members.

Local Distribution of Members.

JULY 1ST, 1900.

BEDFORDSHIRE.

AMPTHILL.

Fellow :—
Tutt : Edwin Thomas.

Professional Associate :—
Pearce : Dudley Francis.

ASPLEY GUISE.

Professional Associate :—
Simpson : John Henry.

BEDFORD.

Fellows :—
Eve : Herbert Trustram.
Eve : John Richard.
Fenning : Herbert Samuel.

Professional Associates :—
Bradshaw : Arthur Stanley.
Weston : Joseph Aurelius.

BIGGLESWADE.

Fellow :—
Fields-Clarke : George Thomas.

LEIGHTON BUZZARD.

Fellow :—
Merry : Arthur Walker.

LUTON.

Fellows :—
Cumberland : Edward Anthony.
Franklin : Benjamin Belgrove.

Professional Associate :—
Hodges : Cecil Stuart.

SILSOE.

Fellow :—
Trethewy : Henry.

WOBURN.

Fellow :—
Pain : George Lloyd.

Professional Associates—
Ambler : Sydney Wood.
Hall : Chas. Pell.

BERKSHIRE.

ABINGDON.

Fellows :—
Adkin : Charles Duncan.
King : John Busby.

Professional Associate :—
Brackett : William Newbegin.

BEEDON.

Professional Associate :—
White ; Walter Ernest Coates.

BRACKNELL.

Professional Associate :—
Laumann : Montgomery Patrick John.

BUSCOT.

Professional Associate :—
Crosland : Walter.

DIDCOT.

Fellow :
Rich : Robert.

EATON-HASTINGS.

Professional Associate :—
Cambridge : William James.

ENGLEFIELD.

Fellow :—
Todd : Richard.

HUNGERFORD.

Fellow :—
Neate : Arthur Webb.

MAIDENHEAD.

Professional Associates :—
Drew : Walter Hubert.
Tilly : Hubert Douglas.

BERKSHIRE—*continued.*

NEWBURY.

Fellows:—
Bingham: Alfred John.
Drewatt: Thomas.
Neate: Arthur Webb.

READING.

Fellows:—
Bailey: Louis Hewitt.
Butler: Albert Ernest.
Cooper: Arthur Leslie.
Egginton: Denys.
Egginton: John.
Haslam: Dryland.
Haslam: Dryland, Jun.
Millar: William Galt.
Peto: James Winder.

Professional Associate:—
Goadby: Howard.

STRATHFIELDSAYE.

Fellow:—
North: George Frederic.

WALLINGFORD.

Fellow:—
Gale: Joseph John.

Associate:—
Wells: Alfred Dodd.

WANTAGE.

Fellows:—
Adkin: Charles Duncan.
Belcher: Edward John.

WHITLEY

Professional Associate:—
Morris: Arthur.

WINDSOR.

Fellows:—
Buckland: Frank Bowry.
Buckland: Henry Duneau.
Buckland: Sidney Crawford.

BUCKINGHAMSHIRE.

AYLESBURY.

Gurney: Ronald George.

BUCKINGHAM.

Fellow:—
Harrison: James Thomas.

Professional Associate:—
Smith: James.

BUCKINGHAMSHIRE—*continued.*

COLESHILL.

Professional Associates:—
Howland: Arthur Frank.
Howland: George.

HIGH WYCOMBE.

Fellow:—
Vernon: Arthur,
Vice-President.

Professional Associates:—
Phillips: William Dearlove.
Wood: Leslie Stuart.

LEDBURN.

Professional Associate:—
Harrison: Cyril Henry Gilmore.

LEIGHTON BUZZARD.

Fellow:—
Cumberland: Edward Anthony.

MARLOW (GREAT).

Fellow:—
Lawrence: Arthur.

NEWPORT PAGNELL.

Fellow:—
Samuel: William John.

STONY STRATFORD.

Fellow:—
Gotto: Frederick Edward.

WINSLOW.

Fellow:—
Wigley: George Davys Edward.

CAMBRIDGESHIRE.

BABRAHAM.

Professional Associate:—
Webb: Frederic Noel.

CAMBRIDGE.

Fellows:—
Grain: Arthur Tress.
Jonas: Harry Marshall.
Moyes: John Helenus.
Scruby: William Thomas.

Professional Associates:—
Crosier: Charles.
Gray: Percy Williams.
Jonas: Samuel Marshall.
Rutter: Arthur Lionel.

Associate:—
Somerville: William.

CHEVELEY.

Professional Associate:—
Garrod: Herbert James.

CAMBRIDGESHIRE—*continued.*

ELY.

Fellows:
Bidwell: Charles,
Member of Council.
Bidwell: John Evans.
Bidwell: Philip Shelford.

LINTON.

Fellow:—
Chalk: Henry Philip.

LITTLEPORT.

Fellow:—
Martin: Heber Gambling.

NEWMARKET.

Fellow:—
Bellingham: Archibald Turner.
Professional Associate:—
Marriott: Cecil Wynne.

WISBECH.

Professional Associate:—
Davis: William Henry Harold.

CHESHIRE.

ALTRINCHAM.

Fellow:—
Hall: John Herbert.

ASHTON-ON-MERSEY.

Professional Associate:—
Witham: James Bernard.

BIRKENHEAD.

Fellow:—
Mills: William Edward.

BROOKLANDS.

Professional Associate:—
Bowden: Ernest Newton.

CAPESTHORNE.

Fellow:—
Carswell: William.

CHESTER.

Fellows:—
Birch: Richard Elwyn.
Jones: Isaac Matthews.
Richmond: Walter Coleridge.
Whalley: Henry Shaw.
Professional Associates:—
Andrews: Arthur George.
Elphick: George Pelham.
Smith: Arthur Plumbe.
Tait: Frank Vincent.

CHESHIRE—*continued.*

CREWE.

Fellow:—
McCracken: William.
Professional Associate:—
Hinchsliff: Edward Robert.

DODDINGTON.

Fellow:—
Loring: John.

DUKINFIELD.

Fellow:—
Pearson: Alfred.

ECCLESTON.

Fellow:—
Parker: The Hon. Cecil Thomas.
Professional Associate:—
Humphry: Martin George.

FRODSHAM.

Fellow:—
Linaker: Charles Edward.

HAUGHTON.

Fellow:—
Owen: Richard Newsham.

HEATON CHAPEL.

Professional Associate:—
Pye: George Henry.

HOLMES CHAPEL.

Professional Associate:—
Turner: Drysdale.

KNUTSFORD.

Fellows:—
Hall: John Herbert.
Smith: John Thompson.
Professional Associate:—
Smith: John Ambrose.

MIDDLEWICH.

Professional Associate:—
Sheldon: Harold.

NEW BRIGHTON.

Professional Associate:—
Johnson: Henry Labron.

NORTHWICH.

Fellow:—
Stocks: Frederick William.

CHESHIRE—*continued.*

STOCKPORT.

Fellows:—
Brady: Charles Alldis.
Brady: William Hollinshed.

WILMSLOW.

Fellow:—
Cartwright: Alfred Stott.

Professional Associate:—
Halkyard: William Redford.

CORNWALL.

BUDE.

Fellow:—
Thring: Douglas Theodore.

LAUNCESTON.

Fellow:—
Kittow: John.

Associate:—
Cowlard: Christopher Lethbridge.

LISKEARD.

Fellow:—
Benson: Robert Alan.

Professional Associate:—
Elliott: Arnold.

REDRUTH.

Fellow:—
Jenkin: Arthur Pearse.

CUMBERLAND.

ASPATRIA.

Professional Associate:—
Wilton: James Percy.

Associate:—
Hill: John Smith.

BRAMPTON.

Professional Associate:—
Lee: Francis Blacklock.

CARLISLE.

Fellows:—
Hayton: Joseph William.
Hayton: Pattinson.
Heskett: William James.
Richardson: George.
Rook: Joseph Taylor.

Professional Associates:—
Little: Hudson.
Sale: Arthur Reed.

COCKERMOUTH.

Fellow:—
Clutton: William James.

CUMBERLAND—*continued.*

LOWTHER.

Fellow:—
Woof: Robert Stephenson.

NETHERBY.

Fellow:—
Bowman: John James.

PENRITH.

Fellows:—
Birkett: Tom.
Heskett: William James.
Hudson: James.
Little: William.

RAVENGLASS.

Fellow:—
Watt: Alexander.

WHITEHAVEN.

Fellow:—
Stanley-Dodgson: Stanley Dickinson.

Professional Associates:—
Brown: Thomas, Jun.
Sly: William.

WORKINGTON.

Fellow:—
Potts: James.

DERBYSHIRE.

ALFRETON.

Fellow:—
Eardley: John William.

ALLESTREE.

Fellow:—
Harrison: John Edward.

BAKEWELL.

Fellow:—
Longsdon: Ernest Morewood.

BEAUCHIEF ABBEY.

Fellow:—
Sampson: William.

BREADSALL.

Professional Associate:—
Thompson: Frederick Hubert.

BUXTON.

Fellows:—
Hubbersty: Henry Alfred.
May: Thomas Henry.

DERBYSHIRE—*continued.*

CALOW.

Fellow:—
Thorpe: Christopher.

CHESTERFIELD.

Fellows:—
Jeudwine: William Wynne.
Margereson: Charles Frederic.
Martin: Gilson.

DERBY.

Fellows:—
Brailsford: Henry.
Fuller: Thomas Alfred.
Parkin: John Robert.
Shaw: John.
President.
Shaw: John, Jun.
Tomlinson: Thomas.

Professional Associates:—
Hooley: Arthur John.
McCallum: Peter Service.

Associates:—
Blackshaw: John Frank.
Strutt: The Hon. Frederick.

DUCKMANTON.

Fellow:—
Byron: Augustus William.

HATHERSAGE.

Fellow:—
Bruce: Robert Knight.

NORTON LEES.

Professional Associate:—
Alderson: Rowland William.

QUARNDON.

Professional Associate:—
Simpson: Leslie Shepherd.

SANDIACRE

Professional Associate:—
Child: Edmund Herbert.

SHIPLEY.

Fellow:—
Sebastian-Smith: Charles.

WINGERWORTH

Fellow:—
Barnes: George Frederick.

DEVONSHIRE.

BARNSTAPLE.

Fellows:—
Fox: Frederick Russell.
Smyth-Richards: George Cobley.
Thorne: Arnold.

DEVONSHIRE—*continued.*

Professional Associate:—
Southcombe: John Charles.

BEERALSTON.

Fellow:—
Ward: Daniel.

BIDEFORD.

Fellows:—
Cooper: John Groves.
Stapledon: Ernest Allen.

COCKINGTON.

Professional Associate:—
Greenfield: Thomas James.

DEVONPORT.

Fellow:—
Greenwood: Joseph.

Professional Associates:—
Mackenie: Hector John Maxwell.
Venning: Alfred John Meybohn.

EXETER.

Fellows:—
Bowden: John Friendship.
Commin: Frederick James.
Drew: Henry.
Vice-President.
Drew: Henry Alban.
Drew: John Gould.
Dymond: Francis William.
Ellis: Albert Edward.
Lucas: John Archibald.
Parsons: Henry John Donne.
Scott-Smith: Arthur Courtenay.
Ware: Charles Edwin.

Professional Associates:—
Whittaker: Ernest Victor.
Whitton: Percy.

HEAVITREE.

Professional Associate:—
Orchard: Sidney Samuel.

INSTOW.

Fellow:—
Lock: William Henry.

KILLERTON.

Fellow:—
Taylor: Thomas William Harris.

MODBURY.

Fellow:—
Pearse: William.

DEVONSHIRE—*continued.*

MORETONHAMPSTEAD.

Fellow :—
Loveys : Arthur Clampitt.

NEWTON ABBOT.

Fellows :—
Rendell : Arthur Stephen.
Stooke : James.

OKEHAMPTON.

Fellow :—
Powell : Charles Reginald Evenden.

PLYMOUTH.

Fellows :—
Body : Arthur.
Body : John Bond.
Corderoy : Athelstane.
Dudley Edgar.
Elliott : Chas.
Foster : Joseph Burgess.
Lethbridge : Walter.
Ward : Daniel.

SOUTH BRENT.

Fellow :—
White : Arthur Jeffrey.

TAVISTOCK.

Fellows :—
Ruudle : Edward Collins.
Ward : Frank.

TEIGNMOUTH.

Fellow :—
Frost : Frederic Cornish.

TORQUAY.

Professional Associates :—
Cole : James Thomson.
Greenfield : Thomas James.
Kieser : William Henry Gustav.
Rivers : Charles Edwin.

TOTNES.

Fellows :—
Bourne : Robert Elliott.
Michelmore : Alfred.

UPTON PYNE.

Fellow :—
Osmond : Edward.

WEMBWORTHY

Fellow :—
Tanner : James Melhuish

DEVONSHIRE—*continued.*

YEALMPTON.

Professional Associate :—
Eve : Charles Gerald.

DORSETSHIRE.

CANFORD.

Professional Associate :—
Meaby : Thomas James, Jun.

DORCHESTER.

Fellows :—
Duke : Edward.
Duke : Henry.
Tory : John Edward.

Professional Associate :—
Genge : William Pope, Jun.

EVERSHOT.

Fellow :—
Wells : William Howley.

FONTMELL MAGNA.

Professional Associate :—
Chipp : George

MARNHULL

Fellow :—
Allen : George.

MELPHASH.

Fellow :—
Sanctuary : Campbell F. S.

Professional Associate :—
Birch : Francis Julian Laurence.

PARKSTONE.

Fellow :—
Oakley : Edward Benjamin.

POOLE.

Fellow :—
Elford : John.

SHAFTESBURY.

Fellow :—
Day : George Carleton.

STURMINSTER-NEWTON.

Fellow :—
Senior : Harry Samuel.

SWANAGE.

Fellow :—
Clifton : James Edward.

DORSETSHIRE—*continued.*

WEYMOUTH.

Fellows:—
Burns: Gavin James.
Crickmay: George Rackstrow.
Crickmay: John Edward.
Young: Harry Austin Lindsay.

WIMBORNE.

Fellows:—
Paterson: Charles.
Richards: George Edward.
Wigram: Reginald Spencer.

Professional Associate:—
Harvey: Frederick Charles.

DURHAM.

BARNARD CASTLE.

Fellow:—
Wells: Edwin.

BEAMISH.

Professional Associate:—
Clark: Nathaniel, Jun.

BRANCEPETH.

Fellow:—
Peirson: Henry Thomas.

CHESTER-LE-STREET.

Fellow:—
Clark: Nathaniel.

CONSETT.

Fellow:—
Oliver: Charles Edward.

DARLINGTON.

Fellow:—
Eade: Arthur Willoughby French.

DURHAM.

Fellows:—
Rowlandson: Christopher.
Wall: George Young.

Professional Associate:—
Rowlandson: Samuel Messiter.

GATESHEAD-ON-TYNE.

Fellow:—
Wallace: Henry.

KEVERSTONE.

Fellow:—
Bainbridge: Robert Stagg.

DURHAM—*continued.*

SEAHAM HARBOUR.

Fellow:—
Brydon: Robert.

Professional Associate:—
Lake: Vivian Davey.

STOCKTON-ON-TEES.

Fellows:—
Curry: Henry John.
Rodham: John.

Professional Associate:—
Harrison: Arthur.

SOUTH SHIELDS.

Professional Associate:—
Weir: James Scott

SUNDERLAND.

Fellows:—
Hedley: John Hunt.
Miller: John Ezra.

WEST HARTLEPOOL.

Professional Associate:—
Foster: Henry Helm.

ESSEX.

ARDLEIGH.

Fellow:—
Fenn: John.

BIRDBROOK.

Professional Associate:—
Hood: Thomas.

BRAINTREE.

Fellow:—
Vaizey: John George.

CASTLE HEDINGHAM.

Fellow:—
Balls: James Mayhew.

CHELMSFORD.

Fellows:—
Chancellor: Frederick.
Christy: Archibald Ernest.
Hilliard: George Edward.
Martin: Alfred John.

Professional Associate:—
Phillips: Francis John.

Associate:—
Gepp: Charles Bramston Osborne.

ESSEX—*continued.*

CHIGWELL.

Fellow:—
Savill : Alfred.

COGGESHALL.

Fellow:—
Surridges : Joseph Smith.

COLCHESTER.

Fellows:—
Collins : Charles Edwin.
Creswell : William Thomas.
Fenn : John.
Stanford : Charles Maurice.
Start : Joseph William.

Professional Associates:—
Cowell : Wilfred Lee.
Grimwade : Henry.
Wilson : John.

EPPING.

Fellow:—
Sworder : Hugh.

GRAY.

Fellow:—
Cobham : Charles.

HATFIELD PEVEREL.

Fellow:—
Strutt : The Hon. Edward Gerald,
Member of Council.

INGATESTONE.

Fellow:—
Coverdale : Frederick John.

MALDON.

Fellow:—
Parker : Charles Alfred.

ORSETT.

Fellow:—
Kemp-Smith : James Frederick.

RAYNE.

Fellow:—
Newman : Thomas Harry.

ROMFORD.

Fellow:—
Kemsley : Joseph William.

SAFFRON WALDEN.

Fellow:—
Nockolds : Martin.

Professional Associates:—
Nockolds : Alfred George.
Nockolds : Martin Charles Hubert.

ESSEX—*continued.*

SNARESBROOK.

Professional Associate:—
Cushen : Charles Osmon.

SOUTHEND-ON-SEA.

Fellow:—
Tapp : Arthur.

Professional Associate:—
Phillips : George Cawkwell.

WALTHAM-ABBEY.

Fellow:—
Chetwood : Stephen.

Professional Associate:—
Carr : Herbert Francis.

WENDEN.

Professional Associate:—
Robinson : Martin Catlin.

WOODFORD.

Fellows:—
Kemsley : Joseph William.
Lee : Philip Shirling.

Professional Associate:—
Kemsley : William Hugh.

GLOUCESTERSHIRE.

BISHOPSTON.

Professional Associate:—
Holbrow : Herbert Oliver.

BRISTOL.

Fellows:—
Addie : Peter.
Cotterell : Albert Player Isaac.
Daniel : Henry Augustus Hood.
Munro : Philip.
Scammell : Thomas.
Sturge : Robert Fowler.
Sturge : William.
Past-President.

Professional Associates:—
Cole : Francis Joseph.
Councell : Thomas James.
Daniel : Herbert Hood.
Holbrow : Herbert Oliver.
Sturge : Theodore.

CHELTENHAM.

Fellows:—
Sadler : George William.
Villar : James.

CHIPPING-SODBURY.

Professional Associate:—
Brooks : William Nathaniel.

GLOUCESTERSHIRE—*continued.*

CIRENCESTER.

Fellow:—
Anderson: Robert.

Professional Associates:—
Dodd: Eustace Cyril Theodore.
Swanwick: Bruce.

Associate:—
Kinch: Edward.

FAIRFORD.

Professional Associate:—
Milbourne: John Seymour.

FALFIELD.

Fellow:—
Harle: John Joseph.

GLOUCESTER:

Fellows:—
Bruton: Henry William.
Knowles: Henry.

KINGSWOOD.

Professional Associate:—
Saise: Alfred John.

TODDINGTON.

Fellow:—
Wise: Charles Dacres.

HAMPSHIRE.

ALDERSHOT.

Fellow:—
Isted: Samuel Eveland.

ALTON.

Fellow:—
Studdy: Thomas Edward.

Associate:—
Downie: Alexander Francis Mackenzie.

ANDOVER.

Fellows:—
Ellen: Frederick Charles.
Herbert: Allan.
Westbury: George Henry.

Professional Associates:—
Hooper: Alfred Frederick.
Keep: William Henry.
Marchant: Robert Charles.

BASINGSTOKE.

Fellows:—
Raynbird: Hugh Edward.
Simmons: Charles Franklin.
Simmons: William Anker.
Wallington: John Arthur Beach.

Professional Associate:—
Bigg: Lionel Thursfield.

HAMPSHIRE—*continued.*

BISHOP'S WALTHAM.

Fellows:—
Austin: Richard.
Austin: Richard, Jun.

Professional Associate:—
Parry: Richard Frederick.

BOURNEMOUTH.

Fellows:—
Evans-Vaughan: Henry.
Haddock: Roland.
Hankinson: Thomas James.
Hawker: Harry Edwin.
Jennings: FitzLaurence Percival Dudley.
Lane: Ernest Lacan.
Rebbeck: Edward Wise.
Rebbeck: Thomas Warren.
Roker: Mitchel John.
Watson: Alfred.

Professional Associates:—
Dancaster: Arthur.
Satchell: Charles.

BROCKENHURST.

Fellow:—
Curtis: Charles Edward.

BROOKE.

Professional Associate:—
St. Aubyn: Belville Molesworth.

CARISBROOKE.

Fellow:—
Marvin: Albert Edward.

CHILLAND.

Fellow:—
Arnold: Francis.

CLATFORD.

Fellow:—
Lywood: Edwin.

COMPTON.

Fellow:—
Eames: Edward.

EAST STRATTON.

Professional Associate:—
Pain: William Henry.

EAST TYTHERLEY.

Fellow:—
Robey: Robert.

FARINGDON.

Fellow:—
Warner: Henry

HAMPSHIRE—*continued.*

FORDINGBRIDGE.

Fellow :—
Hannen : Reginald St. John

GOSPORT

Fellows :—
Coleman : Thomas Everit.
Robinson : Edmund Arthur.

HAMBLEDON.

Fellow :—
Arnold : Francis.

HAVANT.

Fellow :—
Stallard : Alfred Edwin.

HIGHCLERE.

Fellow :—
Rutherford : James Augustine.

LYMINGTON.

Professional Associate :—
Ouvry : Peter Arnold.

NEW MILTON.

Professional Associate —
Hankinson : Francis Henry.

NEWPORT.

Fellow :—
Way : Henry James.

PETERSFIELD.

Fellows :—
Goldsmith : Douglas Fleet.
Mitchell : George Sharman.

PORCHESTER.

Professional Associate :—
Wyatt : Archibald.

PORTSMOUTH.

Fellows :—
Hall : Ernest.
King : Thomas.

Professional Associate :—
Jenkins : Richard James

PORTSEA.

Fellows :—
Blake : Frederick.
Kent : George Edward.
King : Thomas.
King : Sir William David.

HAMPSHIRE—*continued.*

RYDE.

Fellows :—
Cocks : Samuel Roger.
Newman : Francis.
Riddett : William Hammond.

Professional Associate :—
Riddett : Maurice Charles.

SOUTHAMPTON.

Fellows :—
Blizard : John Henry.
Burnett : Alfred Andrew.
Hill : William Burrough.
Lemon : James.
Perkins : Walter Frank.
Smith : Frederick John.

SOUTHSEA.

Fellows :—
Kent : George Edward.
King : Sir William David, D.L.
Vernon-Inkpen : George Charles.
Walmisley : Joseph William.

SPARSHOLT.

Professional Associates :—
Sparrow : Wm. Hugh.
Williams : Arthur Codrington.

TOTTON.

Professional Associate :—
Lumley : Frederick Robert.

UPTON GRAY.

Associate :—
Seth-Smith : Frederick.

VENTNOR.

Fellow :—
Sanders : Theodore Ridley.

WELLINGTON.

Fellow :—
Pain : James.

WEST COWES.

Fellow :—
Bird : James Binfield.

WINCHESTER.

Fellows :—
Gudgeon : George Edward
Harris : James.
Newton : Thomas Edwin.
Smith : George Alfred.
Stopher : Thomas.

Professional Associates :—
Arnold : Allen.
Gale : Arthur Witherby.
Sawyer : John Ashton.

HAMPSHIRE—*continued.*

WINCHFIELD.

Fellow:—
Wetherall: Harry Lancaster.

Professional Associate:—
Bruce: Alexander David.

HEREFORDSHIRE.

BRAMPTON-BRYAN.

Professional Associate:—
Smith: Douglas.

BROMYARD.

Fellow:—
Millyard: John William.

HEREFORD.

Fellows:—
Brown: John Powles.
Godsell: George Herbert.
Haywood: Henry.
Haywood: William Matthews.
Parker: John.

Professional Associate:—
Hewitt: William.

HERTFORDSHIRE.

BARKWAY.

Professional Associate:—
Balding: Albert.

CHESHUNT.

Fellows:—
Crawter: John.
Crawter: John, Jun.
Debenham: Frank Gissing.

ELSTREE.

Fellow:—
Burnett: George John Mulcaster.

HARPENDEN.

Professional Associate:—
Young: William.

HERTFORD.

Fellows:—
Austin: Russell Gardiner.
Norris: Walter Henry.

HITCHIN.

Fellow:—
Shilcock: James.

MUCH HADAM.

Associate:—
Gayton: Charles.

HERTFORDSHIRE—*continued.*

NEW BARNET.

Fellows:—
Child: Fred.
Hasluk: Lancelot Gerald.
Taylor: Edward Fergusson.

RICKMANSWORTH.

Fellow:—
Couchman: Henry Boteler.

Professional Associate:—
King: William Isaac.

ROYSTON.

Fellow:—
Thurnall: John Edward.

Professional Associate:—
Rowley: William Taylor.

SAWBRIDGEWORTH.

Professional Associate:—
Crawley: William Jeeves.

ST. ALBANS.

Fellows:—
Harding: Sidney Longhurst.
Low: Robert John.
Rumball: Aubrey.
Woodman: Thomas Foster.

Professional Associates:—
Butcher: Thomas Ewen.
Buttenshaw: Ernest Newth.
Lewis: John.

TRING.

Fellows—
Brown: Arthur Macdonald.
Brown: Frank John.
Foulkes: Septimus Giffard.

Professional Associate:—
Foulkes: Noel Mackintyre.

WARE.

Fellows:—
Duvall: John William
Hunt: Thomas.

WARGRAVE.

Fellow:—
Coote: Stanley Victor.

WATFORD.

Fellows:—
Ayres: Charles Pryor.
Pridmore: Albert Edward
Weall: John.

Professional Associates:—
Brown: William Edward.
Finch: Clement Robert:
Sedgwick: Rupert William.
Taylor: John Francis White.
Weall: John Graham.

Associate:—
Thomas: Hubert.

HUNTINGDONSHIRE.

BRAMPTON.

Fellow:—
Bird: John.

CALDECOTE.

Fellow:—
Preedy: Frederic.

HUNTINGDON.

Fellows:—
Looker: John.
Theakston: William Pease.

ST. NEOTS.

Fellow:—
Peppercorn: John Hutchinson.

Professional Associate:—
Peppercorn: John Arthur.

KENT.

ASHFORD.

Fellows:—
Burrows: Alfred John.
Hobbs: John.
Waterman: James.

Professional Associates:—
Brown: Alexander.
Burrows: Frank Herbert.

BECKENHAM.

Fellow:—
Kerl: William James.

Professional Associate:—
Ovenden: Charles.

BEXLEY.

Fellow:—
Lucas: William Edward.

BOUGHTON-MONCHELSEA.

Fellow:—
Smith: George.

BROMLEY.

Fellows:—
Ball: William Alfred.
Latter: Hugh Robinson.
Lepper: John Harrage.
Payne: Frederick.
Rudkin: Arthur John.

Professional Associate:—
Sandell: Stanley Lunan.

CANTERBURY.

Fellows:—
Amos: Frank.
Ashenden: Leonard.
Harvey: John James Sayer.
Jennings: William Joseph.
Wacher: Thomas.

KENT—*continued.*

Professional Associate:
Blunt: Herbert Arthur Scawen.
Kingsford: Percy Hamilton.

CHARTHAM.

Fellow:—
Finn: Arthur George.

CHATHAM.

Fellow:—
Hammond: Robert William.

COWDEN.

Professional Associate:—
Darbishire: Harry Vernon.

DARTFORD.

Fellows:—
Dann: Henry.
Prall: Herbert Alexander
Prall: Herbert Edward.

DEAL.

Fellow:—
Honeyball: Fred Thomas.

DOVER.

Fellows:—
Fry: George Frederick.
Hayward: Frederick George.
Hayward: Henry.
Walmisley: Arthur Thomas.

EDEN BRIDGE.

Professional Associate:—
Orwin: Charles Stewart.

ERITH.

Professional Associates:—
Baylis: Alfred William.
Stoneham: Edward Russell

FAVERSHAM.

Fellows:—
Finn: George William.
Neame: Frederick, Jun.

FOLKESTONE.

Fellows:—
Barton: Harry Howe.
Grover: Philip Gordon.
Temple: Frederick Wilson

Professional Associate:—
Meacher: Edward Ernest.

KENT—*continued.*

GRAVESEND.

Fellows:—
Cobham : Charles.
Cobham : George William.

Professional Associate:—
Dann : Henry, Jun.

GROOMBRIDGE.

Fellow:—
Parris : Charles John.

HERNE BAY.

Professional Associate:—
Adams : Gerald James Frederick.

HIGHAM.

Fellow:—
Cobb : Herbert Mansfield.

HYTHE.

Professional Associate:—
Wilks : Ernest Stringer.

IGHTHAM.

Associate:—
Luard : Major-Gen. Chas. Edw., R.E.

LAMBERHURST.

Professional Associate:
Lees : Vernon Francis.

LINTON.

Professional Associate:—
Champion : George Ernest.

LODDINGTON.

Professional Associate:—
Smith : Frederic.

LYDD.

Fellows:—
Finn : Adolphus.
Reeve : Kingsnorth.

MAIDSTONE.

Fellows:—
Cox : Walter Theodore.
Day : William, Jun.
Seymour : Richard Arthur Hamilton.
Tootell : Charles.
Tootell : Joseph.
Waring : Herbert Fuller.
Waterman : Albert James.

Professional Associates:—
Green: Thomas John
Peppercorn : Henry McArthur.

KENT—*continued.*

MILTON.

Professional Associate:—
Farnham : William Augustus.

MINSTER.

Fellow:—
Boulting : Frederick Edward.

MURSTON.

Professional Associate:—
Jarrett : Thomas William.

PADDOCK WOOD.

Fellow:—
Tompsett : William Robert.

PENSHURST.

Professional Associate:—
Attlee : Edward Guy.

RAMSGATE.

Fellows:—
Hinds : Henry.
Page : Stanley Hatch.
Vinten : Harold Bertram.

ROCHESTER.

Fellows:—
Cooke : Henry.
Homan : Franklin George.
Homan : Hubert Franklin.
Kidwell : John.
Prall : Herbert Alexander.
Prall : Herbert Edward.

ST. MARY CRAY.

Fellow:—
Strouts : Lewis Herbert.

SELLING.

Fellow:—
Finn : Fred, Jun.

SEVENOAKS.

Fellows:—
Cronk : Edwyn Evans.
Cronk : Frank.
Cronk : William Henry.
Mann : Jabez.

Professional Associates:—
Brooker : Frederick George.
Cronk : Charles Tylee.

SHEERNESS-ON-SEA.

Fellow:—
Child : Henry John.

SHORNCLIFFE.

Fellow:—
Billingham : John Alfred Lawrance.

KENT—*continued.*

SIDCUP.

Fellow:—
Snelling: Henry.

Professional Associate:—
Cregeen: Hugh Stowell, Jun.

SITTINGBOURNE.

Fellow:—
Jackson: William Tress.

Professional Associates:—
Cowper: Richard William.
Elgar: Walter Robinson.

SNODLAND.

Fellow:—
Wood: William.

SWANLEY.

Fellow:—
Hooper: Cecil Henry.

TEMPLE EWELL.

Fellow:—
Phillips: Frederick Hamilton.

TENTERDEN.

Fellow:—
Waterman: James.

THONG.

Fellow:—
Scriven: Charles Herbert.

TUNBRIDGE.

Fellow:—
Tompsett: William Robert.

Professional Associate:—
Sturgess: John Moore.

TUNBRIDGE WELLS.

Fellows:—
Brackett: Arthur William.
Brackett: Frederick Henry.
Brackett: William.
Freeman: Sydney.
Langridge: George.
Member of Council.
Roper: William.

Professional Associate:—
Delves: Robert Harvey Addington.

TUNSTALL.

Professional Associate:—
Cowper: William Shapland.

WEST FARLEIGH.

Fellow:—
Rawlins: William.

KENT—*continued.*

WINGHAM.

Fellow:—
Elgar: J. Edward.

WYE.

Fellows:—
Smith: Frank Braybrooke.
Young: Thomas John.

Professional Associate:—
Turner: Benjamin Franklin.

LANCASHIRE.

ASHTON-UNDER-LYNE.

Professional Associate:—
Hodgkinson: James Henry.

BARROW-IN-FURNESS.

Professional Associate:—
Veit: Leonard James.

BLACKBURN.

Fellows:—
Bertwistle: James.
Gradwell: Arthur Richard.
Holt: George Henry.
Robinson: George Edward.

BOLTON.

Fellow:—
Thompson: Francis William.

BOLTON-LE-MOORS.

Professional Associate:—
Collyer: Daniel William.

BURNLEY.

Professional Associate:—
Wilson: James Calvert.

BURY.

Fellows:—
Cartwright: Joshua.
Hopkinson: Alfred.
Nuttall: Herbert.

Professional Associate:—
Mitchell: Lewis.

CARNFORTH.

Professional Associate:—
Jackson: Robert Ewan.

CLAYTON-LE-MOORS.

Fellow:—
Fletcher: Thomas.

CLITHEROE.

Fellow:—
Parmeter: Frank.

LANCASHIRE—*continued.*

DARWEN.

Professional Associate:—
Haywood: Samuel Spence.

DIDSBURY.

Professional Associate:—
Pye: George Henry.

LANCASTER.

Fellow:—
Roper: John Simpson.

Professional Associate:—
Bradshaw: Arthur George.

LEIGH

Fellow:—
Fairclough: William.

Professional Associate:—
Selby: John Basely.

LEVENSHULME.

Fellow:—
Nesbitt: John Oscar.

LIVERPOOL.

Fellows:—
Beckwith: Henry Langton.
Hartley: Henry.
Kirby: Edmund.
Lancaster: Charles Holland.
Pain: Coard Squarey.
Thomas: Glegge.
Wainwright: Thomas Taylor, *Member of Council.*
Wrennall: William.
Young: Edward Herbert.
Young; Oswald William.

Associate:—
King: William.

LYTHAM.

Fellows:—
Fair: James Stretton.
Fair: Thomas.
Rea: John Marcus Beaumont.

MANCHESTER.

Fellows:—
Bancroft: Frederick Herbert.
Banks: Thomas.
Batey: Henry Simpson.
Bowden: John.
Bradshaw: Harry Greaves.
Brady: Ralph Hollinshed.
Bridgford: Ernest James.
Bridgford: Col. Robert, C.B
Cross: John.
Cross: William Haslam.
Dorning: Arthur Harry.
Eagle: William.

LANCASHIRE—*continued.*

Fellows:—
Earle: Thomas Algernon
Earnshaw: Jacob.
Eastham: James Cook.
Fairclough: William.
Fowler: Alfred Mountain.
Fowler: Henry.
Hall: John Herbert.
Holden: John.
Hurrell: John Weymouth.
Jackson: Charles.
Larmuth: George Horatio.
Maxwell: Francis William.
Meade: Thomas de Courcy
Meller: William Galloway.
Pierson: Charles.
Shelmerdine: Henry.
Taylor: Thomas Walters.
Wallis: John David.
Watts: Samuel Lingard.
Wilson: Lawrence Richard.
Wilson: Thomas Silk.
Wilson: William Henry.

Professional Associates:—
Blundell: Harry.
Bridgford: Leo Appleton.
Dunlop: Dugdale Oakley.
Lomas: Albert Daniel.
Morrison: Daniel
Wilson: William Edward.

ORMSKIRK

Fellow:
Wolfenden: Thomas

PATRICROFT.

Fellow:—
Ellis: Francis, Jun.

PENWORTHAM.

Fellow:—
Park: Philip Samuel.

PRESTON.

Fellows:—
Birch: Walter de Hoghton
Fair: Jacob Wilson.
Fair: James Stretton.
Fletcher: Thomas.
Gregson: George Ernest.
Johnston: Walter Henry.
Myres: John James.
Nevett: Francis Walter.
Nevett: Thomas.
Park: William Philip.
Rea: John Marcus Beaumont

Professional Associate:—
Dixon: Francis Edward.
Turner: Henry.

ROCHDALE.

Fellow:—
Brocklebank: John.

SOUTHPORT.

Fellow:—
Barrow: Thomas Robert.

LANCASHIRE—*continued.*

ST. HELEN'S.

Fellows:—
Campbell: Henry Hunter.
Hanson: Amos.

Professional Associates:—
Davidson: Richard Bruce.
Ward: Martin Hammond.

TODMORDEN.

Fellows:—
Brocklebank: John.
Suthers: James.

WARRINGTON.

Fellows:—
MacIver: Colin.
Secker: John Eustace.
White: John.

WIGAN.

Fellow:—
Fair: Jacob Wilson.

Professional Associate:—
Fair: Arthur Edward.

LEICESTERSHIRE.

ASHBY-DE-LA-ZOUCH.

Fellows:—
German: George.
German: George, Jun.
German: Harry.
German: John.

Professional Associate:—
Joyce: Harry Ward.

BELGRAVE.

Professional Associate:—
Luke: John: Jun.

BLACKFORDBY.

Fellow:—
Joyce: John Hall.

FRISBY-ON-THE-WREAKE.

Fellow:—
Perkins: Joseph.

KIRBY MUXLOE.

Professional Associate:—
Laird: Ninian P.

LEICESTER.

Fellows:—
Clare. Edward Lovell.
Clough-Taylor: Horace George.
Draper: Arthur Thomas.
Everard: John Breedon.
Goddard: Joseph.

LEICESTERSHIRE—*continued.*

Fellows:—
Goodacre: John.
Goodacre: Robert Johnson.
Haigh: Thomas Frederick.
Hincks: Henry Thorp.
Rolleston: Sir John Fowke Lancelot, *Vice-President.*
Rolleston: Wm. Gustavus Stanhope.
Sebastian-Smith: Charles.
Wade: George Tempest.

Professional Associates:—
Beasley: John Arthur Llewellyn.
Davis: Neville Brookes.
Keay: William.
Pochin: Thomas Clement.
Snow: Henry Cyprian.

LOUGHBOROUGH.

Fellows:—
German: Harry.
Hampton: Willie Thomas.
Hodson: George.
Woolley: William Edward.

Professional Associate:—
Holbecke: Æmilian Henry.

MARKET HARBOROUGH.

Fellows:—
Coales: Herbert George.
Fisher: Charles Browning.
Fisher: Edward Knapp.
Holloway: Harry Hownam.

MOUNTSORREL.

Fellow:—
Martin: Robert Frewen.

NAILSTONE.

Fellow:—
Thorpe: John.

STOUGHTON.

Burroughes: Charles Fitzpatrick.

WOODHOUSE.

Fellows:—
Humphreys: Henry.
Humphreys: John Henry.

LINCOLNSHIRE.

ALFORD.

Fellow:—
Higgins: Frederic.

BOSTON.

Fellow:—
Hawley: Sir Henry Michael, Bt.

BRATTLEBY.

Professional Associate:—
Wright: Philip Chetwood.

LINCOLNSHIRE—*continued.*

CAYTHORPE.

Fellow:—
Crofts: Ewan Nevile.

GRANTHAM.

Fellow:—
Manner: Henry Alfred.

Associate.
Scott: The Hon. Henry Robert.

HOLBEACH.

Fellow:—
Abbott: William.

HORKSTOW.

Fellow:—
Turton: Edward James.

LINCOLN.

Fellows:—
Legard: Digby Charles.
Woolley: Reginald.

LOUTH.

Fellow:—
Mason: Charles.

SPALDING.

Fellow:—
Kingston: Samuel

STAMFORD.

Fellows:—
Corby: Joseph Boothroyd.
Edmonds: John.
Richardson: Charles.
Richardson; James.

WAINFLEET.

Fellows:—
Tindall: Charles William.
Walker: George Booth.

LONDON AND NEIGHBOURHOOD.

Fellows:—
Abbott: William.
Abrams: Benjamin Percy.
Adams: Henry.
Adkin: Benaiah Whitley.
Allen: Percy.
Allport: William.
Andrews: John.
Angel: Francis Houghton.
Anscombe: Ernest.
Arding: Charles Bennett.
Ault: Edwin.

Badcock: Philip.
Barfield: Frederick Henry.
Barker: Horace Richard.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Barnes-Williams: Thomas.
Barns: Stephen Allen.
Barratt: Frederic William.
Barry: Dennett Heber.
Bate: Thomas.
Batstone: Rowland Robert.
Battam: Frederick Thomas.
Batterbury: Thomas.
Batting: Walter.
Baxter.: George.
Beadel: Maurice Frederick.
Beale: Robert John.
Bedells: Charles Herbert.
Beeston: Frederick.
Beken: George.
Beken: Walter.
Bell: Herbert Owen.
Beven: Septimus.
Bickerton: George Arthur.
Bingham: Alfred John.
Bingham: Frederick Henry.
Bingham: Reuben.
Bird: James Binfield.
Bird: Walter.
Blackbourn: Henry.
Blackford: Arthur.
Blake: Edwin Holmes.
Blake: William John, Jun.
Blakemore: William Agutter.
Blashill: Thomas,
Member of Council.
Blunt: Montague Cecil.
Blyton: George.
Bolam: Charles Godfrey.
Bolden: John Leonard.
Bond: Douglas Vale.
Booker: Algernon Erskine.
Booth: Gilbert William.
Bowdich: Henry.
Bowdich: John.
Boxshall: Henry Edwin.
Boyd: John Jermyn.
Boyes: Henry Cowell.
Breach: Benjamin I'Anson.
Breeds: Arthur Owen.
Brereton: Franc Sadleir.
Brereton: Thos. Bloomfield Sadleir.
Brewer: Frank John.
Briant: Robert.
Bridgewater: Bentley James.
Brighton: George Lawrence.
Brinsley: Herbert George William.
Brooks: Charles William.
Brooks: John McMullen.
Brooks: Phillip Fuller.
Brown: Alexander Burnett.
Brown: George James.
Brown: George Turville.
Browne: Flint.
Buckland: Alfred Virgoe.
Buckland: Henry Duneau.
Bull: Alfred Edwin.
Bull: Walter.
Burchell: Sidney Herbert.
Burmester: John William Stanley.
Burnett: David.
Burroughes: Thomas Henry.
Bushell: Henry.
Buzzard: Alfred Lindsey.
Byron: Augustus Wm.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows :—

Cable : James M.
Cæsar : Charles Edward.
Carew : John Theodore.
Carritt : Ernest.
Carpenter : Evan George.
Carpmael : Harold.
Castell : Charles Smith.
Castle : Henry James.
Castle : Sydney Charles Courtenay.
Castle : William Henry Baldwin.
Cates : Arthur.
Chancellor : Frederick.
Chambers : Theodore Gervase.
Chapman : Henry James.
Charles : Richard Stafford.
Chattell : David James.
Chatterton : George.
Chesterton : Edward.
Chesterton : Sidney Rawlins,
Cheston : Chester.
Cheston : Horace.
Chew : Henry Victor.
Child : Fred.
Chinnock : Frederick George.
Christy : Archibald Ernest.
Clark : Samuel.
Clarke : George Ernest.
Clarke. Howard Chatfeild.
Clarke : Percy Henry.
Clarke : Stanley Chatfeild.
Clarkson : John.
Clarkson : William.
Clifton: William Edward.
Clutton : John Henry.
Clutton : Ralph.
Clutton : Robert George.
Cobb : Herbert Mansfield.
Collier : Richard James.
Collier : Walter Henry.
Collingham : John Cyril Lees.
Collins : Henry Hyman.
Collins : Horace.
Collins : Marcus E.
Colyer : Frederick.
Conder : Alfred.
Cooper : Alfred William.
Cooper : George Warren.
Cooper : John Robert.
Cope : Henry James.
Corderoy : Athelstane.
Corderoy : George.
Coulson : William Lindsay.
Coverdale : Henry.
Cranfield : William Bathgate.
Crawter : John, Jun.
Crickmay : George Rackstrow.
Crier : John Thomas.
Crockett : Edwin Arthur Brassey.
Cronk : Edwyn Evans.
Cronk : Frank.
Cross : Arnold Charles Martin.
Crowther : Keston Nelson.
Cruwys : Robert.
Culverhouse : Cecil Goldar Fearn.
Currey : Henry.
Currey : Percivall.
Curtis : Charles Edward.
Curtis : Robert Leabon.
Cuxson : George Austin Pryce.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows :—

Dallas : Edwin Stuart.
Darch : John.
Dash : Roland Ashford.
Davies : David Thomas.
Davies : George Humphreys.
Davis : Charles James.
Davis : James.
Daw : William Herbert.
Dawson : Percy John.
Deacon : Thomas Mark.
Dearle : William Henry.
Debenham : Frank Bridgewater.
Debenham : Frank Gissing.
Debenham : Frederic Kersey.
Debenham : Horace Bentley.
Dendy : William Cooper.
Dinwiddy : Donald.
Dinwiddy : Thomas.
Doll : Charles Fitzroy.
Dollar : Peter.
Done : John James.
Dowden : Henry Joseph.
Downing : Frederick.
Downing : Henry Philip Burke.
Dowsett : Charles Finch.
Driver : Charles William.
Driver : Robert Manning.
Drury : Edward Dru.
Duncan : James Morison.
Dunn : William Henry.
Dyball : Harvey.
Dyer : William John.

Eales : Frederick Ernest.
Eagland : William Francis.
Eason : Edward William.
Egerton : Hubert Decimas.
Eiloart : Frederick Edward.
Eldridge : Herbert.
Elgood : Frank Minshull.
Ellis : Frederick.
Ellis : Herbert Moates.
Ellis : Ralph Staples.
Ellis : Richard Adam.
Ellis : Sir John Whittaker, Bart.
Elwell : William Henry.
Emery : Arthur James.
Emmanuel : Barrow.
Evans : George.
Eve : William.
Eve : William Harold.
Eves : Francis George Bertram.
Eves : William Lionel.

Farmer : Edmund.
Farmer : Hugh Cecil.
Farnan : Henry Richard.
Farrar : Sidney Howard.
Farthing : Walter Thomas.
Field : James Frederick
Fitt : Harry Charles.
Fleetwood : George.
Fletcher : Banister Flight.
Fletcher : Herbert Phillips.
Flint : William Hurst.
Ford : Lawton Robert.
Ford : Solomon.
Foster : Charles Rolls.
Foster : Frank.
Foster : Henry Edwin.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Foster : James Herbert Furmedge.
Fowler : Alfred Mountain.
Fowler : Sydney.
Fox : Edwin.
Frampton : Alfred.
Francis : George Futvoye.
Francis : Leon Albert.
Franklin : Arthur Thomas
Franklin : Thomas Frederick.
Freeman : Sydney.
Fry : Joseph Harry.
Fuller : Ernest.
Fuller : Harry.
Fuller : Herbert Henry.
Furber : Herbert.
Furber : Percy Norman.
Furber : William.

Gairdner : Edward James.
Gale : Arthur John.
Gale : Ernest Sewell.
Galsworthy : Frederick Thomas
Vice-President.
Gamble : Sidney Gompertz.
Gandy : James.
Gardiner : Edward James.
Garner : John Stanley.
Garrood : Thomas William M.
Gate : Alfred Joseph.
Gibbon : William Jacomb.
Giddy : Osman Horton.
Gilbert : William Henry Sainsbury.
Girdwood : James.
Glasier : George Henry Brougham.
Gleed : Richard Cummings.

Glover : Henry Alexander.
Goddard : Joseph.
Goldsmith : William.
Goodchild : Josiah.
Goodwyn : Leonard William.
Gore : Spencer W.
Goulding : Arthur.
Goulding : William Purdham.
Gouldsmith : George Waller.
Gover : Arthur Sutton.
Gover : John Richard.
Graves : Walter.
Green : Alexander Ernest.
Green : Edmund Horace.
Green : Frederick Algernon.
Green : James.
Green : Samuel.
Gregory : Alfred.
Grellier : Harley Mair.
Griffin : Alfred.
Griffin : Harold.
Griggs : Robert.
Grose : Vincent John.
Grover : Arthur.
Gruning : Edward Augustus.
Gwyther : William Warlow.

Hale : Raymond Henry.
Hall : Walter.
Hallett : William Brown.
Hamilton : John.
Hampton : Geo. Frederick Wm.
Hancock : William St. John Hii.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Hansell : Reginald Goddard.
Hardcastle : Fredk. Henry Appleton.
Harding : Edward Ernest.
Harland : Marchant James.
Harrington : George Frederick.
Harrison : Richard Creese.
Harston : Arthur.
Hart : William Frederick.
Haskins : William Albion.
Head : John George.
Heath : Henry.
Hedley : Robert Wilkin.
Heelis : William.
Henderson : Henry Arthur.
Herring : William Arthur Warwick.
Heward : Ernest James.
Hickson : Stephen Westby.
Higgins : George.
Hilton : John.
Hine : George Ernest.
Hine : George Thomas.
Hobson : Frederick William.
Hodson : George.
Hodson : William.
Holland : Thomas James, Jun.
Hollingsworth : Arthur Augustus.
Holman : George Edward.
Holmes : Montagu.
Hood : Walter Richard.
Hope : William Elliott.
Hopkins : Alfred James.
Horne : Edmund.
Horne : William Edgar.
Member of Council.
Horsey : Frederick John Terry.
Houghton : Frederick.
Houghton : John Pounds.
Houghton : Thomas Marcus.
Houghton : William.
Hovenden : Henry Edward.
Hudson : Arthur Byrne.
Hudson : Edward William.
Hugman : Charles Eady.
Humphreys : Charles.
Hunt : Frederick Cope.
Hunt : Frederick William H.
Hunt : Henry Arthur.
Hunt : Josiah.
Hunter : Cecil.
Hussey : Samuel Murray.

Inman : Edward Blakeway.
Ingram : Henry Law.
Inman : Marshall Nisbet.
Inman : William Nutter.

Jarmain : William.
Jarman : Frank Wilmot.
Jeffree : Sydney.
Jenkinson : John.
Jenkinson : William Eric Leigh.
Jenkinson : William Wilberforce.
Jerome : Thomas Stroud.
Johnson : Bernard Marr.
Johnson : Henry.
Jonas : Henry.
Jones : Charles.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Jones : Charles Frederick.
Jones : Ernest Joel.
Jones : Frederick Herbert.
Jones : Henry Arthur.
Jones : Thomas.
Joseph : Delissa.

Kedgley : Charles.
Keirle : Robert.
Kennedy : James.
Kerl : William James.
Kersey : Alexander Henry.
King : Alfred.
Knight : Edgar Walsh.

Lacey : John Turk.
Lake : Cuthbert Joseph.
Lambert : Godfrey Charles.
Lancaster : John Roy.
Lang : Charles Augustus.
Lang : Charles Frederick Dashwood.
Lawrance : Walter.
Lawrence : William Robert.
Leaning : Henry John.
Leaning : John.
Leaning : William Arthur.
Lee : Charles William.
Lee : Frederick.
Lee : John Wilfrid.
Lee : Philip Shirling.
Lee : Sydney Williams.
Le Rossignol : Francis.
Letts : Thomas Hollins.
Lightfoot : Francis Lowry.
Littlewood : Lionel.
Lloyd : George Hamilton.
Lofts : Henry.
Lofts : Henry Fairlam.
Lovegrove : Henry.
Low : Robert John.
Lowe : Charles Harlowe.
Luker : Dyneley.

McCarthy : Henry Robert.
McDermott : N. Bernard.
Maddox : Harry Edward.
Mallett : William Robert.
Mann : Charles John.
Mann : James Bagshaw.
Mann : Robert Bagshaw.
Marks : Hyman.
Marr : James.
Marshall : Arthur George.
Marriott : George Wharton.
Martin : George Dennis.
Martin : Howard.
Member of Council.
Martin : Samuel.
Martin : Thomas.
Masterman : George Hughes.
Mathews : Joseph Douglas.
Mellenfield : James Henry.
Mellor : Thomas Henry.
Mercer : Charles Edward.
Messenger : Henry.
Middleton : Reginald Empson.
Migotti : Alphonzo.
Millar : Charles William.
Millard : Edward.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Mixer : Edward.
Monckton : Henry Percival.
Monier-Williams : Stanley Faithful.
Montagu : Henry Havelock
Moody : Thomas.
Moore : Alfred.
Moore : Harold Edward.
Morris : George Field.
Morris : Harold George.
Morris : Richard Percival.
Moss : Thomas Walter.
Moxon : Herbert William.
Mould : Graham Harley.
Muller : John Joseph.
Mundy : Thomas Edward.
Murray : William.

Neale : George James.
New : Edward Vorley.
Newman : Arthur Harrison.
Newman : Charles Henry.
Newman : Samuel Frank.
Newmarch : Henry Charles.
Newson : Harry Carss.
Newton : Edwin Bennett Brierley.
Nicholson : William Abernethy.
Norman : James Maurice.
Norman : James Noel.
Norman : William Horace.
North : George.
Northcroft : Henry.
Norton : Thomas Herbert.
Notley : Richard Albert.
Notley : Robert Pledge.
Nottage : William Griggs.

Oakley : Christopher Percival.
Oakley : John Hubert.
Ogden : Michael Guy.
Orgill : John Berwick.

Page : Robert.
Pain : William.
Paine : Edward Jabez.
Parker : Charles Alfred.
Parker : Stanley.
Parnacott : Alfred.
Parr : Samuel.
Parr : Samuel George.
Parry : Richard.
Partridge : Edward John.
Patch : Shirley Hutchins.
Paull : Alan.
Payne, Alexander.
Pearce, Fred W.
Pearson, Harry John
Pearson : Howard.
Peck : William Roland.
Penfold : John Wornham,
Honorary Secretary.
Perriam : Alfred Joseph..
Pether : Harry.
Phillips : William.
Pilditch : Philip Edward.
Pinks : Edwin Charles.
Poston : Henry.
Potter : Herbert George.
Powell : Frederick Atkinson.
Preston : Samuel David.
Price : Richard Arnold.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Pridmore: Albert Edward.
Pridmore: Arthur Stirling.
Pritchard: Herbert Alfred.
Purchase: Edward Keynes.
Purvis: Charles James.

Rawlins: Henry Adair.
Rawlins: William.
Read: George Huntly.
Rees: William Andrew.
Reid: Arthur Fletcher.
Rex: Francis Herbert.
Richards: Alfred.
Richards: William.
Richardson: Oliver Archer.
Rickman: Thomas Miller,
Past-President.
Riddle: Frederick Henry Brimble.
Ridley: Percy Edward.
Roberts: Charles Quincey.
Roberts: Henry Croydon.
Roberts: Richard.
Robins: Edward Cookworthy.
Robins: Philip Seymour.
Robinson: Charles Edward.
Robinson: Henry.
Robinson: Henry Herbert.
Robinson: Theodore Richard.
Robson: Edward Robert.
Rogers: Horace Mordaunt.
Rogers: William Bennett.
Roods: Alfred.
Rooke: Alfred Bradley.
Ruault: John Gustave Peter.
Rüntz: Ernest Augustus.
Russell: Murray Lawrence.
Rushworth: Edmund Walter.
Rutley: Charles.
Rutley: Frank.
Ryan: William Patrick.
Ryde: Arthur Lyon.
Ryde: Charles Bertram.

Sadler: George William, Jun.
St. Quintin: Perry.
St. Quintin: Richard Samuel.
Sanday: George Henry.
Saunders: Charles Herbert.
Saunders: Edward.
Saunders: Martin Luther.
Saunders: Rutland.
Saunders: Samuel Brown.
Savill: Alfred,
Member of Council.
Savill: Alfred, Jun.
Savill: Edwin.
Sedgwick: Alfred Sydney Edward.
Selby: Charles Frederic.
Sexton: George Alexander.
Shackle: Edward Neild.
Sherrin: John Lester.
Sherwin: Joseph Henry.
Shilcock: James.
Shone: Isaac.
Shoppee: Charles Herbert.
Simms: Walter.
Single: Arthur.
Skipper; Henry Herbert.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

'kitt: Arthur.
Skrimshire: Samuel.
Slade: James Benjamin.
Slater: Charles Frederick.
Sly: Joseph Townson.
Smith: Edward.
Smith: Frank Adams.
Smith: Frederick Robert.
Smith: Henry Herbert.
Smith: John Moore.
Smith: Percy Pyne Caldecott.
Smith: Sidney Robert James.
Smyth: Edward.
Snelling: Henry.
Squarey: Elias Pitts,
Past-President.
Squarey: Newell William Pitts.
Squire: Richard.
Standen: Arthur C.
Stanger: Samuel Arthur.
Stanham: George Gordon.
Stedman: Charles Mason.
Stenning: Alexander Rose,
Member of Council.
Stephenson: Charles William.
Stevens: Charles Vivian.
Stevens: John William.
Stevens: William Charles.
Stevenson: Edmund Herbert.
Steward: Herbert Thomas,
Member of Council.
Stock: Henry.
Stoner: Alfred.
Street: William Charles.
Strudwick: Hayward James.
Strudwick: William Henry.
Strutt: Hon. Edward Gerald.
Swain: Ernest.
Swain: Frank.

Tabberer: Benjamin.
Tanner: Henry.
Tapp: Arthur.
Tasker: Henry Hugh.
Taylor: Arthur William.
Taylor: Edward Fergusson.
Taylor: John Herbert.
Taylor: Richard Frederick.
Tee: Samuel Clifford.
Tewson: Edward.
Tewson: Edward Arthur.
Theobald: Henry.
Theobald: Henry Wells Dewhurst.
Theobald: John Meadows.
Thomas: John Henry.
Thompson: Arthur Edward.
Thompson: George William.
Thurgood: William Henry.
Thynne: Edward Lewis.
Thynne: Guy Harry.
Tidman: Edward.
Tootell: Richard William.
Trafford: Frederick Charles.
Treadwell: Henry John.
Trist: John William.
Trollope: Charles Brown.
Trollope: Henry Charles.
Trumper: John Alfred.
Tubbs: Walter Burnell.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Tuckett : Percival Fox.
Turner : Alexander Henry.
Turner : Thomas Neve.
Tutt : Edwin Thomas.
Tyler : Jamer William.

Vaizey : John George.
Vernon : Arthur.

Vice-President

Vigers : Astley.
Vigers : Leslie Robert.

Member of Council.

Vigers : Martin.
Vigers : Robert.

Past-President.

Wadling : Henry John.
Wadmore : Beauchamp.
Wagstaffe : Thomas Rogers.
Walcott : Lyons Roden Sympson.
Walker : Samuel.
Wallace : George.
Walmisley : Arthur Thomas.
Ward : George.
Warner : Alfred Ernest.
Warner : William Henry,
Waters : William Richard.
Watney : Daniel.

Past-President.

Watney : Dendy.
Watney : Walter Daniel.
Watts : Charles.
Weatherall : Henry.
Weaver : William.
Webster : Hugh Calthrop.
Wells : William Henry.
Wenbourne : Sidney Thomes.
West : Charles Henry Edward.
Wharton : Thomas George.
Wheatley : Stephen Gladstane.
Wheeler : John Henry West.
White : William Henry.
Whiteley : Charles Percy.
Whittaker : John Dronsfield
Wilkinson : George Ayscough.
Wilkinson : George Herbert.
Williams : Henry Cuthbert.
Williams : Leonard James.
Williams : William Herbert.
Willis : Edward.
Wilson : Frederick Robert.
Wilson : Sir Jacob.
Withall : Latham Augustus.
Wonnacott : Ernest Wm. Malpas.
Wood : Charles Bruce.
Wood : Henry.
Wood : John Daniel.
Woodbridge : Stephen, Jun.
Woodrow : Thomas John.
Woods : Arthur George.
Woods : Thomas.
Woodthorpe : Edmund.
Woodward : William.
Wreathall : Robert T.
Wright : George Thomas Green.
Wrightson : Arthur Frederick.
Wyles : John Walter.

York : Henry.
Young : Andrews.
Young : Douglas.
Young : Morgan Henry.
Young : Thomas.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates :—

Adams : Herbert.
Addiscott : Henry Hugh.
Allsebrook : Arthur.
Allpress : Horace Edward.
Anderson : Thomas John.
Andrews : Herbert George.
Arno : Samuel
Assiter : Harry G.

Baddeley : Bernard Beresford.
Baker : Geoffrey Clinton.
Balding : Albert.
Ball : James Benjamin.
Banks : Frederick Stuart A.
Barker : George Frederick.
Bedwell : Ernest Charles.
Beken : George, Jun.
Bentley : Harold Edwin.
Berry : Charles Windsor.
Betenson : Frederic Roger.
Bettridge ; John Charles Lebon.
Bickford : Joseph Grant.
Bird : John Bowyer.
Blackshaw : Charles.
Blount : Edward.
Blyth : George Alfred.
Boden : Maurice.
Bösher : Victor Evans.
Bowden : Harry.
Bousfield : Edwin Vaughan Davenport.
Brevetor : Thomas.
Bridgewater : Clement Joseph Bentley.
Briggs : John.
Brown : Arthur Allen.
Brown : Frederick.
Brown : Wm. Lobin Trant.
Bruton : Basil Vassar.
Buckland : William Thomas.
Bulbeck : George.
Burgess : Henry Herbert Philip.
Burton : Reginald Robert.
Buss : Fleetwood George William.

Cardall : Frederic William.
Carter : Alfred Presley.
Cassin : Charles Langa.
Cathcart : Archibald Hamilton, The Hon.
Chadwick : Spencer.
Chalcraft : Henry Terrell.
Chapman : Vaughan Godfrey St. John.
Chart : Christopher.
Chattell : Francis Loriot.
Chesterton : Frank Sidney.
Church : Geoffrey Redmore.
Clarke : Leonard Eustace.
Clarkson : William.
Clayden : Walter.
Cobbe : Henry Alexander.
Cole : George Harry.
Collier : Arthur Charles.
Constable : John.
Cooke : Lionel.
Cope : William George.
Corfield : Thomas.
Cowin : Norris Tynwald.
Cresswell : John Theodore Ross.
Crook : Hollis Augustus,
Crouch : James Leonard.
Cudlipp : William.
Cumberbatch : Carlton Parry.
Cutler : George Alfred.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates:—
Dadd : Charles John Thomas.
Daffarn : Thomas Alfred.
Dafforn : George Bertie.
Dangerfield : Thomas Samuel.
Davies : John William Satterley Humphreys.
Dawson : Henry Aufrere.
Dawson : Walter Henry.
Delamare : Frank.
Douglas : Bernard Moxon.
Draper : Edwin Maxwell.
Drew : Allen.
Dunt : John Harlow.

Easton : Walter John.
Ellis : Alfred Cave.
Evans : Ernest Sydney.
Evans : Percival Baker.
Everett : Arthur Sherman.
Everington : John.

Fagg : Edwin William.
Few : Harry Garrard.
Field : Charles Roland.
Fisher : Robert.
Fitness : John Francis.
Fleetwood : Geo. Spalding.
Fletcher : George Rivers.
Foster : Edward Chas.
Fowler : Alfred Charles Stanley.
Freeman : George.
Funnell : Horace Frederick.
Furber : Henry Aubrey.

Galsworthy : Vincent Somers.
Garrard : Arthur Norman,
Professional Associate of Council.
Garrett : Arthur Berry.
Gate : Henry Arthur Armytage
Gilbert : John Sainsbury.
Goadby : Joseph Stubbins.
Goodman : Alfred.
Gore : William Joll.
Grant : Joseph.
Gray : Horace Norman.
Green : Arthur Edward.
Green : James Henry Townsend.
Greenop : Edward.
Greenwood : Ernest.

Hall : John Sebastian.
Hamilton : John Paynter.
Hankey : Gilbert Lionel.
Harding : Frederick Allcroft.
Harper : Edgar Josiah.
Harrison : George John Robertson.
Hartley : Tom Percy.
Hassett : Reginald Charles.
Hawkins : John Frederick.
Head : William Alfred.
Healing : Oswald Judd.
Heath : Henry Cubitt.
Hebden : George Radcliffe.
Heckford : Harley.
Hedger ; Arthur Constantine.
Hellicar : George Thomas.
Henry : Edward Hugh.
Hicks : Stanley.
Hicks : William Rooke.
Hinks : Henry.
Holmes : James Thomas.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates:—
Holmes : John Edward.
Hope : Arthur Ernest.
Horton : William Phelps.
Howell : Ernest John.
Howgrave-Graham : Alan Herbert.
Howgrave-Graham : George Ernest.
Hudson : Albert William.

Innes : Gilbert Plantagenet Mitchell.

Jessett : Charles.
Jessett : Charles Edward Vernon.
Johnston : Reginald.
Jones : Percy Everley.
Jordan : George Henry.
Jull : William Vincent.

Kibblewhite : Henry James Treleaven.
Kirk : John Wright.
Knight : George Edward.
Knowles : George Potter.

Lampard : Sydney Martin.
Lamprill : William Thomas.
Lansdown George Arthur.
Larkin : Richard Webster.
Latham : Albert Tummons.
Laurence : Walter Bernard.
Lawley : Frederick William.
Leake : Robert.
Lee : Ernest Edward Arthur.
Lemmoin-Cannon : Henry.
Lewis : Arthur Llewelyn.
Lickis : Leonard.
Lightfoot : John George.
Little : Henry.
Lomax : Ernest George.
Lovegrove : Charles Gresham.
Lowe : Charles Robert.
Lucas : Joseph.
Luck : George Edward.
Lumley : Edward Adrian.
Lynch : James Henry.

Macer : Alfred Thomas.
Mager : Sydney.
Marcus : William Mortimer.
Martin : Alexander Wm.
Mason : Charles William Hayley.
Matthews : Douglas Samuel.
May : William Charles.
Mayne : Charles Millard.
Melrose : Frank.
Meredith : Percy William.
Merrett : James.
Merrick : Frederick Walter.
Miller : Frederick William.
Milnes : Robert.
Moat : Ernest William.
Molyneux : Herbert Ernest.
Morrison : Daniel.
Mullett : Henry Thomas.
Mumby : Elvin Fowler.

Newman : Henry Arthur.
Nicholson : Ebenezer.
Nicholson : Guy Murray.

Oldnall : Roger William.

Palmer : William Edward King.
Parnacott : Arthur Charles.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates:—
Parry: Herbert Mostyn.
Paul: John William.
Pearce: Charles Frederick.
Pearce: Francis Arthur.
Pearce: Frederick William.
Pease: Charles Edward.
Peebles: Philip.
Perks: Sydney.
Pewtress: Herbert Wilmshurst.
Phillips: John Henry.
Physick: Walter Frederick.
Pinder: Richmond.
Pineger: James Reginald.
Pinfold: Francis Arthur.
Poggio: Eloi John.
Potter: Shirley Herbert.
Pratt: Frank Percy.
Price: Capel Hereward.
Protheroe: Alfred Ernest.
Pyle: Benjamin Thomas Rice.

Read: Walter Herbert.
Reed: Richard George Gordon.
Reeve: Douglas William.
Richardson: Arthur Bayliffe.
Richardson: Ernest Edward.
Robbins: Walter Francis.
Roberts: Charles Gordon.
Robertson: Henry Charles.
Robinson: Ralph Eteson.
Rogers: Percy Willben.
Rogers: Thomas George.
Ross: David James.
Ruddle: Frank J.
Russell: Cecil Herbert.

Sabin: Joseph Henry.
Professional Associate of Council.
Saker: Sidney.
Sanday: William Henry.
Satchell: Herbert Arnold.
Scoble: Herbert Thomas.
Searle: Sydney.
Seddon: George Farquharson.
Selby: Frank.
Sexby: John James.
Shearburn: Harry.
Shearer: James Hughan.
Sherry: Nathaniel.
Skingle: Alfred
Skingle: Alfred Charles.
Skues: Charles Ayre Mackenzie.
Slade: Isaac.
Smith: Charles Gordon.
Smith: George Henry.
Smith: Sydney Arthur.
Stacey: William.
Stainton: Francis Charles.
Stanford: George.
Stanton: Frederick William Shultheiss
Stevenson: Frederick J.
Stimson: Edward Frederick.
Stimson: Herbert Percy.
Stokes: Hugh Charles.
Stower: Joseph.
Straker: Howard.
Stubbing: Richard Webb.
Stupart: Charles Walter.
Sturgess: John Moore.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates:—
Summerefild: Joseph Charles.
Sutton: Frederick Stanley.
Swan: Harrold.

Taylor: George.
Terry: Frank Treacher.
Tewson: Leonard
Thomas: Charles John Howell.
Thomas: George.
Thompson: Alfred.
Thompson: Joseph Atherden.
Thompson: Roland O'Brien.
Thurgood: Ernest Charles.
Thurgood: Leonard Fielder.
Tighe: Arthur.
Townsend: George James.
Trehearne: Alfred Frederick Aldridge
Trent: William Edward.
Tyler: William.

Verity: Ernest George.

Wain: George Sparrow.
Waldram: Percy John.
Walker: Leon Victor.
Walker: William Selves.
Walton: Edgar Thomas.
Warmington: Herbert Andrew Cromartie.
Warren: William Ernest.
Watson: George.
Watson: William James.
Weatheritt: James.
Weekes: Cyril Swaffer.
Wells: Edward Ogbourn.
West: Herbert James.
Weston: George.
Wheeler: Charles Trevor Ogle.
Whiteley: Cyprian Charles Oswald.
Wigley: Sidney Prudden.
Wilde: Sidney Algernon.
Wilkinson: Percy Newton.
Williams: Peter Lloyd Armstrong.
Willoughby: Charles Albert.
Willoughby: Charles William.
Wilson: John Hayes.
Wontner-Smith: Percy.
Wood: John Edward.
Woodcock: Frank Sydney.
Woodward: Walter Henry.
Woolnough: Tom.
Worthington: James Scott.
Wright: Thomas Henry.
Wrightson: Robert Garmonsway.

Yewdall: Francis Edward.
Young: James Dawbarn.

Associates:—
Adkins: William Ryland Dent.
Alverstone: The Right Hon. Lord, G.C.M.G., Master of the Rolls,
Associate of Council.
Bankes: John Eldon.
Barnes: George Frederick.
Barry: Charles Edward.
Barry: Sir John Wolfe, K.C.B.,
Associate of Council.

LONDON AND NEIGHBOURHOOD—*continued.*

Associates:—
Batten: John Winterbotham.
Beale: James Samuel.
Bellewes: George Oliver.
Boulger: George Edward Simonds.
Bramwell: Sir Frédk. Joseph, F.R.S.
Bund: John W. Willis.

Cadell: George.
Castle: Edward James, Q.C.
Clarke: Sir Edward, Q.C..
Clarke: Sir Ernest.
Clode: Walter.
Clutton: Hubert Spencer.
Colam: Robert Frederick.
Courthorpe-Munroe: Harry.
Coward: John Charles Lewis.
Cripps: Charles Alfred, Q.C., M.P.

Danckwerts: William Otto Adolph Julius, Q.C.

Emden: T. Walter L

Freeman: George Mallows, Q.C.
Freshfield: Edwin.
Freshfield: William Dawes.

Glen: Reginald Cunningham.
Grantham: Richard Fuge.

Hamilton: Henry Best Hans.
Hamond: Thomas Astley Horace.
Hudson: Alfred Arthur.

King: Walter George.

Leworthy: John Henry.
Littler: Ralph Daniel Makinson, Q.C.

Marriott: The Right Hon. Sir William Thackeray, Q.C.
Marshall: Frederick.
Mence: Phillip Allan.
Milles: Charles William.
Moulton: John Fletcher, Q.C.
Munton: Francis Kerridge.

Pain: Arthur Cadlick.
Pinches: Edward Edwin.
Pollard: Edward Hutchinson.
Pope: Samuel, Q.C.

Redman: Joseph Haworth.
Rees: John Charles
Richards: Henry Charles, Q.C.. M.P.
Rickards: Arthur George.
Rigg: Herbert Addington.
Russell: Charles Alfred.
Ryde: Walter Cranley.

Statham: William Arnold.
Stephens: Pembroke S., Q.C
Stevens: William Richard.
Stutfield: Alfred Robert Ogilvie.
Sutton: Henry.

LONDON AND NEIGHBOURHOOD—*continued.*

Associates:—
Thomas: George James.

Vaughan: Edward Joseph.
Veasey: Thomas Frederick

Warren: Reginald Augustus.

Associate of Council.
Wheeler: Thomas Whittenbury, Q.C.
Will: John Shiress, Q.C.
Winckworth: Lewis.

Colonial Fellow:—
Nisbet: John.

MONMOUTHSHIRE.

DIXTON.
Fellow:—
Wanklyn: Phillip Endell.

LLANOVER.
Professional Associate:—
Addie: John Heathcote.

MONMOUTH.
Fellows:—
Gardiner Robert Strachan.
Powell: Frederick Atkinson.

NEWPORT.
Fellows:—
Graham: William.
Hitchcox: William.
Rees: William George.
Tanner: William.
Professional Associate:—
Griggs: Henry Jenner.

PONTYPOOL.
Fellow:—
Llewellin: David Morgan.

USK.
Fellow:—
Graham: Arthur Gore.
Professional Associate:—
Cowell: Herbert Lee.

NORFOLK.

ATTLEBOROUGH.
Fellows:—
Bacon: Frank Mace.
Bacon: Horace.
Salter: William Herbert.

BRANDON.
Fellow:—
Selby-Bigge: Charles P. O.

NORFOLK—*continued.*

CASTLE RISING.

Fellow:—
Beck: Arthur Clement.

CASTON.

Professional Associate:—
Scorer: Alfred George.

DISS.

Fellow:—
Gaze: Thomas William.

DOWNHAM MARKET.

Fellow:—
Hawkins: Charles.

EAST DEREHAM:

Fellow:—
Ireland: Edwin Benjamin.

EAST RAYNHAM.

Fellow:—
Gayford: Henry John.

HOLKHAM.

Professional Associate:—
Hawes: Frederick Kirk.

HORSTEAD.

Fellow:—
Falcon: Michael.

KING'S LYNN.

Fellows:—
Easter: William.
Wilkin: Horace Martin.
Wright: William Edward.

NORTH WALSHAM.

Professional Associate:—
Barratt: Leigh.

NORWICH.

Fellows:
Bailey: Harry David Chinery.
Beck: Edward William.
Hornor: Charles Jared.
Hornor: Francis.
Mills: Samuel Mealing.
Morgan: Benjamin Brauford.
Rose: Thomas.
Scott: Augustus Frederic.

Professional Associates:—
Bodger: Percy Morris.
Forster: Walter Hill.
Lee: Henry.
Spelman William Wilton Rix

NORFOLK—*continued.*

SANDRINGHAM.

Fellows:
Beck: Arthur Clement.
Beck: Frank Reginald.

SWAFFHAM.

Fellow:—
Tallent: Edwin John.

THETFORD.

Professional Associate:—
Menzies: Robert.

WEST RUDHAM.

Fellow:—
Freuer: William.

NORTHAMPTONSHIRE.

HORTON.

Fellow:
Cave: Thomas Newman.

KETTERING.

Fellow:
Bolam: Charles Godfrey.

NORTHAMPTON.

Fellows:
Law: Edmund.
Merry: Thomas.
Scriven: Richard George.

OVERSTONE.

Fellow:—
Dickson: Thomas Arthur.

PETERBOROUGH

Fellows:—
Laurance: John.
Woodford: Lionel Burnet.

PRESTON CAPES.

Professional Associate:—
Robinson: John Brooke Wood.

THRAPSTON.

Fellow:—
Bletsoe: Henry Hopkinson.

TOWCESTER.

Fellow:—
Aris: John Whitton.

SYWELL.

Professional Associate:—
Holl: Mackintosh Meleng.

NORTHUMBERLAND.

ALNWICK.

Fellow:
Wilson: Sir Jacob.

Professional Associates:—
Hall: Frederick Walter.
Hindmarsh: Michael Anselm.

BOTHAL.

Fellows:—
Sample: Thomas.
Sample: William Collings.

GOSFORTH.

Fellow:
Aynsley: Robert John.

HALTWHISTLE.

Fellow —
Clark: John McClare.

HEXHAM.

Fellow:—
Clark: John McClare.

MATFEN.

Fellow:—
Sample: Charles Herbert.

NEWCASTLE-UPON-TYNE.

Fellows:—
Armstrong: Thomas John.
Bolam: William Thomas.
Durlacher: Alexander Percy.
Forsyth: Thomas Hills.
Taylor: Harry William.
Taylor: John Walton.

Professional Associates:—
Allen: John Parnell.
Town: Henry Annandale.
White: William, Jun.

WOOLSINGTON.

Professional Associate:—
Watson: Claude Henry.

WYLAM.

Fellow:—
James: Christian Hugh.

NOTTINGHAMSHIRE.

BABWORTH.

Fellow:—
Parkin: William.

CLIFTON.

Fellow:—
Haynes: Henry

NOTTINGHAMSHIRE - *continued.*

EAST BRIDGFORD.

Fellow:—
Beaumont: Charles.

EPPERSTONE.

Fellows:—
Huskinson: Thomas William.
Huskinson: William Lambe.

LOWDHAM.

Professional Associate:—
Wright: Ernest Beresford FitzHerbert.

MANSFIELD.

Fellows:—
Turner. Frederick John.
Vallance: Robert Frank.

Professional Associates:—
Butterworth: Josiah.
Crampton: Arthur Wesley.

NEWARK.

Fellow:—
Bailey: William Smith.

Professional Associate:—
Wigram: Henry Joseph.

NOTTINGHAM.

Fellows:—
Barnes: John William James.
Booker: Frank William.
Calvert: Arthur Richard.
Evans: Robert.
Hine George Thomas.
Walker: Herbert.
Walker: Joseph.

Professional Associates:—
Bradwell: Gervase Hubbart.
Noble: Edmund James.
Payne: William Percy.

NUTTALL.

Fellow:—
Taylor: Samuel.

OLLERTON.

Fellows:—
Bell: Joseph Askew.
Wordsworth: Robert Walter.

OSBERTON.

Fellow:—
Lister-Kaye: Charles Wilkinson.

RADCLIFFE-ON-TRENT.

Fellow:-
Morris: Charles.

RETFORD.

Fellow:
Walker: Joshua.

NOTTINGHAMSHIRE—*continued.*

SOUTH COLLINGHAM.

Fellows:—
Wigram : John.
Woolley : Reginald.
Woolley : Thomas Cecil Smith.

Professional Associate:—
Meacher : Sydney George.

WELBECK

Professional Associate:—
Tate : Joseph George.

WOLLATON.

Fellow:—
Wright : Charles William.

Professional Associate:—
Alisebrook : Arthur.

WORKSOP.

Fellow:—
Turner : Thomas Warner.

OXFORDSHIRE.

BANBURY.

Fellow:—
Maxwell : Joseph Archibald.

BICESTER.

Fellows:—
Holiday : Frederick Dean
Holiday : Percy Cave.

HENLEY-ON-THAMES.

Fellows:—
Simmons : Charles.
Simmons : Charles Franklin.
Simmons : William Anker.

Professional Associate:—
Heal : Harold.

MIDDLETON-STONEY.

Fellow:—
Little : William Davis.

OXFORD.

Fellows:—
Castle : Arthur.
Castle : Harold.
Field : Francis Hayward.
Jones : Francis William.
Lightfoot : Henry Le Blanc.
Scovell : John.

Professional Associate:—
Rose : Edward Joseph.

SHIRBURN.

Fellow:—
Watson : James Bruce.

Professional Associate:—
Watson : David Alexander.

OXFORDSHIRE—*continued.*

WITNEY.

Fellow:—
Habgood : Henry Charles.

WROXTON.

Fellow:—
Davis : Charles Edward.

RUTLANDSHIRE.

OAKHAM.

Fellows:—
Royce : David Needham.
Royce : John.

SHROPSHIRE.

ACTON REYNALD.

Professional Associate:—
Astley : Reginald Basil.

ASTON-ON-CLUN.

Fellow:—
Wolley : Thomas John.

BRIDGNORTH.

Fellows:—
De Wend-Fenton : William.
Wyley : Henry James.

BROMFIELD.

Fellow:—
Fenn : Andrew Thomas Cranage.

CHESWARDINE.

Professional Associate —
Chichester : Richard Herbert.

CHIRBURY.

Fellows:—
Morris : Edward Henry.
Morris : William Henry.

CLEOBURY NORTH.

Fellow:—
Dodgson : Wilfred Longley.

CONDOVER,

Fellow:—
Carnell : Sydney George.

ELLESMERE.

Fellow:—
Tower : Brownlow Richd. Christopher.

HAWESTONE.

Fellow:—
Hall : William Timothy.

SHROPSHIRE—*continued.*

HINTON.

Professional Associate:—
Ethelston: Hugh Wicksted.

KNOCKIN.

Fellow:—
Griffiths: Edward, Jun.

LEATON.

Fellow:—
Hickman: Thomas.

LUDLOW.

Fellows:—
Dodgson: Wilfred Longley.
Fenn: Thomas.
McKie: Hugh Unsworth.

LYDBURY NORTH.

Fellows:—
Newill: Robert Henry.
Ward: Felix John.

MUCH WENLOCK.

Fellow:—
Thursfield: Thomas Howells.

OSWESTRY.

Fellow:—
Lawford: William Robinson.

SHREWSBURY.

Fellows:—
Bather: John T.
Burd: Timotheus Henry.
Davis: Alfred Thomas.
Evans: William Ernest.
Owen: Henry.
Wyley: William John.

Professional Associates:—
Armytage: Francis Reginald.
Ellis: Arnold Robertson.
Salt: Reginald Nowell.

UPPINGTON.

Fellow:—
Ashdown: Augustus Harding.

WHITCHURCH.

Fellow:—
Palamountain: Joseph William.

SOMERSETSHIRE.

BABINGTON.

Professional Associate:—
Knatchbull: Wyndham Persse.

SOMERSETSHIRE—*continued.*

BATH.

Fellows:—
Farwell: Frederick George.
Ransford: Benjamin Herbert.
Silcock: Thomas Ball.
Spackman: Charles Chantry.
Spackman: Henry.

Professional Associate:—
Thomas: Edward Morgan Dawson.

BRUTON.

Fellow:—
Bennett: Thomas Oatley.

CHARD.

Fellow:—
Madge: John.

HUTTON.

Fellow:—
Edwards: Arthur Phippen.

MISTERTON.

Fellows:—
Combes: Cyrus.
Parsons: Frank Donisthorpe.
Parsons: Robert Maurice Peters.

NORTH CURRY.

Fellow:—
Peard: John Grigg.

NORTON ST. PHILIP.

Fellow:—
Oliphant: George A. J.

SHEPTON MALLET.

Fellows:—
Heard: Herbert.
Wainwright: Charles Rawlinson.

STAPLEGROVE.

Fellow:—
Shufflebotham: John Henry.

TAUNTON.

Fellow:—
Trepplin: Ernest C.

WELLS.

Fellows:—
Hippisley: Edwin Maggs.
Hippisley: William John.

Professional Associate:—
Lloyd: Donald.

SOMERSETSHIRE—*continued.*

WESTON-SUPER-MARE.

Fellow:—
Wooler: Walter Hernaman.

Professional Associates:—
Campbell: Charles Howard.
Gayer: Alfred Edward.

WILLITON.

Fellow:—
Andrew: Thomas Hawkes.

YEOVIL.

Fellow:—
Tory: John Edward.

Professional Associate:—
Roberts: Joseph William George.

STAFFORDSHIRE.

ARMITAGE.

Professional Associate:—
Waterfield: Horace Clare.

AUDLEY.

Professional Associate:—
Bibby: Thomas.

BURTON-ON-TRENT.

Fellows:—
Harrison: Charles.
Rowland: Joseph Samuel.
Winterton: Wm. Moxon.

DRAYTON.

Professional Associate:—
Humphry: Martin George.

ENDON.

Fellow:—
Heaton: George Herbert.

ENVILLE.

Fellow:—
Punchard: Frederick Burt.

HANLEY.

Fellows:—
Burton: Amos.
Forshaw: Edward.

KEELE.

Fellow:—
Boothby: Henry Vernon.

LICHFIELD.

Fellows:—
Hussey: Robert.
Inge: Charles Henry.
Winterton: Harry John Campion.

STAFFORDSHIRE—*continued.*

LITTLE INGESTRE.

Fellow:—
Mynors: Walter Charles Towers.

LONGTON.

Professional Associate:—
Mitcheson: Harry.

PENKRIDGE.

Fellow:—
Foden: Edward Antrobus.

RUGELEY.

Professional Associate:—
Hall: Thomas Biddle.

STAFFORD.

Fellows:—
Sandy: Henry.
Turnor: Exsuperius Weston.

Professional Associate:—
Smithells: Edwin.

STOKE-UPON-TRENT.

Fellow:—
Lynam: Charles.

STRAMSHALL.

Fellow:—
Forshaw: Edward.

TAMWORTH.

Fellow:—
Arnold: William

Professional Associate;—
Bidwell: Shelford.

UTTOXETER.

Fellow:—
Hardy: Richard Thomas Ash.

WOLVERHAMPTON.

Fellows:—
Bradley: James William.
Duncalfe: Henry George.
Nock: Benjamin Bowen.

Professional Associate:—
Vale: Henry.

SUFFOLK.

BAWDSEY.

Fellow:—
Stirton: Thomas.

BECCLES.

Fellow:—
Pells: Arthur

SUFFOLK—*continued.*

BURY ST. EDMUNDS.

Fellows:—
Blencowe: George.
Scott: Archibald Lacy.
Scott: Henry Lacy.

EYE.

Fellow:—
Garrard: Norton Burroughs.

FELMINGHAM.

Professional Associate:—
Barraft: Leigh.

FRAMLINGHAM.

Professional Associate:—
Cook: Edward Arthur.

GREAT THURLOW.

Professional Associate:—
Stallard: Harold Orlando.

HORSECROFT.

Fellow:—
Simpson: Robert Thomas.

IPSWICH.

Professional Associates:—
Bond: Frederick George.
Cheney: Edwin John.
Menmuir: Robert William.
Turner: Percy.

LAVENHAM.

Professional Associate:—
Scott: Thomas.

LOWESTOFT.

Fellow:—
Pells: Arthur.

NEWMARKET.

Fellow:—
Boa: Andrew.

SOMERLEYTON.

Fellow:—
Rix: George Kerry.

SUDBURY.

Fellow:—
Hayward: Thomas William Alfred.

WOODBRIDGE.

Fellow:—
Arnott: John.

SURREY.

ASHTEAD.

Fellow:—
Osenton: Charles.

BYFLEET.

Professional Associate:—
Muir: James.

CAMBERLEY.

Professional Associate:—
Norris: Edward James.

CARSHALTON.

Professional Associate:—
Aylen: Cecil Hugh.

CATERHAM.

Professional Associate:—
Scrivener: Charles John.

CHERTSEY.

Professional Associate:—
Waterer: Clarence.

COBHAM.

Fellow:—
Pattisson: Jacob Luard, C.B.

Associate:—
Seth-Smith: Archibald.

DORKING.

Fellows:—
White: Charles Alexander.
White: James Alexander.

EGHAM

Fellow:—
Finn: Herbert Archibald.

Professional Associate:—
Paice: William, Jun.

ENGLEFIELD GREEN.

Fellows:—
Menzies: William.
Simmonds: Frederick.

EPSOM.

Fellow:—
Grellier: Harley Mair.

Professional Associate:—
Flight: Alfred.

ESHER.

Professional Associate:—
Rand: John.

FARNHAM.

Fellows:—
Eggar: James Alfred.
Nash: Alfred James.

Professional Associate:—
Williams: William Welsby.

Associate:—
Wing: Thomas Twining.

SURREY—*continued.*

GODALMING.

Fellows:—
Mellersh: Alfred William.
Shearburn: Harry.

Professional Associate:—
Baverstock: Harold Bridge.

GODSTONE.

Professional Associate:—
Wordsworth: Christopher.

GUILDFORD.

Fellows:—
Baxter: George.
Ellis: Ernest Harold.
Lee: William.
Messenger: William Harry.

Professional Associates:—
Hewett: George Thompson.
Soutter: Ernest.
Thurgood: Albert Edward.

KINGSTON-ON-THAMES.

Fellows:—
Bond: Erasmus.
Horsfield: J. Nixon.
Page: George Frederick.
Phillips: William Edwin.

Professional Associate:—
Hardwick: Arthur Jessop.

LEATHERHEAD.

Fellow:—
Osenton: Charles.

LIMPSFIELD.

Professional Associate:—
Wells: Frederic Beauchamp.

MICKLEHAM.

Professional Associate:—
Hodgson: Archibald Sanford.

MITCHAM.

Fellow:—
Chart: Robert Masters.

OCKHAM.

Fellow:—
Sowels: William Clowes.

OXTED.

Fellows:—
Bailey: Leonard.
Osenton: George, Jun.

PURLEY.

Fellow:—
Webb: William.

REDHILL.

Fellow:—
Stacey: Harrie.

Professional Associate:—
Mew: Robert Heath.

SURREY—*continued.*

REIGATE.

Fellows:—
Burchell: Sidney Herbert.
Clutton: Ralph William.
Pym: George Edwin.

Professional Associates:—
Carr: Thomas Edmund.
Morrison: Gerard Donald.

RICHMOND.

Fellows:—
Chancellor: Albert.
Heasler: Holland Charles.
Houghton: John Pounds.
Partridge: Edward John.

Professional Associate:—
Sturley: Arthur Dyson.

RIPLEY.

Fellow:—
Noel: Bryon Bruce.

SURBITON.

Fellow:—
Jerome: Thomas Stroud.

Professional Associate—
Evered: Gillibrand Elwin.

THORNTON HEATH.

Professional Associate:—
Stacey: Frederick Charles Webster.

WALLINGTON.

Fellow:—
Jopling: Joseph.

WALTON-ON-THAMES.

Fellow:—
Dash: Roland Ashford.

WEYBRIDGE.

Fellows:—
Pilditch: Philip Edward.
Synge: Edward Millington.

WOKING.

Fellow:—
Reffell: Charles Arthur.

Professional Associate:—
Mann: Frederick Charles Thomas.

SUSSEX.

BATTLE.

Professional Associate:—
Gripper: Joseph Edward.

BEXHILL.

Professional Associate—
Parks: Walter.

SUSSEX—*continued.*

BRIGHTON.

Fellows:—
Ingram: Walter Fielde.
May: Francis John Charles.
Parsons: Frederick Cecil.
Welch: Frederick William.
Wilkinson: Thomas.

Professional Associates:—
Cox: Reginald John.
Croft: George Herbert.
Mellor: James Frederick.
Udny: Augustus Charles.

CHICHESTER.

Fellows:—
Hobgen: Francis Neale.
Wyatt: Oliver Newman.

Professional Associate:—
Wyatt: Herbert Guy Buckell.

CRAWLEY.

Fellow:—
Gardner: Gilbert.

EASTBOURNE.

Professional Associates:—
Killick: Anthony Edward.
Webber: Henry Stanton.
Woolnough: John William.

EAST GRINSTEAD.

Fellow:—
Turner: Charles.

FIRLE.

Professional Associate:—
Scarlett: Harry.

HAILSHAM.

Fellow:—
Burtenshaw: Albert.

Professional Associate:—
Burtenshaw: Albert King.

HASTINGS.

Fellows:—
Bowley: John Cross.
Dray: Alfred.
Woodhams: James.

Professional Associates:—
Hardiman: Harry.
Kennett: Charles Arthur.
Miller: George Frederick.
Robbins: Walter Francis.

HAYWARD'S HEATH.

Fellows:—
Bannister: Thomas.
Ogilvie: Robert Mathewson,

Professional Associate:—
Bannister: Tom Harrison Caffyn.

SUSSEX—*continued.*

HORSHAM.

Fellows:—
Chasemore: Philip.
King: Frank Hulme.

HOVE.

Fellows:—
Hudson: Edward William.
Jenner: William.
Welch: Frederick William.
Wilkinson: Thomas.

LEWES.

Fellows:—
Card: Henry Curtis.
Davey: Henry Thomas.
Ingram: Walter Fielde.
Morris: Herbert.
Powell: Hubert John.
Powell: Reginald Henry.

Professional Associates:—
Card: Henry.
Dyer: Frederick Burfield.

LITTLEHAMPTON.

Fellow:—
Howard: Harry.

PETWORTH.

Fellows:—
Taylor: Matthew.
Watson: Herbert Edward.
Watson: Herbert John.

PEVENSEY.

Professional Associate:—
Brand: Edmund.

RYE.

Fellow:—
Reeve: Kingsnorth.

Professional Associate:—
Cory: Edward John.

ST. LEONARDS.

Fellow:—
Beard: Edwin Thomas.

SIDLESHAM.

Fellow:—
Hobgen: Thomas Cecil.

SLINFOLD.

Professional Associate:—
Child: Charles.

SOUTHWATER.

Fellow:—
Smith: Sidney.

SUSSEX—*continued.*

UCKFIELD.

Fellow:—
Colgate: Thomas.

Associate:—
Malden: Walter James.

WADHURST.

Fellow:—
Austen: Frank.

WARWICKSHIRE.

ALCESTER.

Fellow:—
Raikes: Col. George Whittington.

ATHERSTONE.

Professional Associate:—
Beach: Archibald William Hicks.

BIRMINGHAM.

Fellows:—
Bettridge: Edward.
Couchman: Robert Edward.
Donne: Henry.
Eayrs: John Thomas.
Fowler: Gerard Edmund.
Fowler: Henry.
Fowler: Richard.
Fowler: William.
Gibson: Denston.
Grimley: Edwin Fearn.
Grimley: Thomas.
Hadley: Frank.
Hedley: Robert Wilkin.
Hendriks: Henry.
Holbeche: Robert Neville.
Jenkins: Oswald.
Kenwrick: George.
Lakin-Smith: Ernest.
Ludlow: Walter Robert.
Mason: William Arthur.
Mathews: George Spencer.
Member of Council
Mathews: Lewis Osler.
Pemberton: Charles Oliver Paget.
Pinney: Frederick Wyldbore Digby.
Price: John.
Raffety: Herbert William.
Robins: William Henry.
Roderick: John.
Smith: Frank.
Williams: Edward Bickerton.
Willmot: George Dyott.
Willmot: John.

Professional Associates:—
Daniel: Henry Wilkinson.
Hawes: Frederick Kirk.
Redfern: Charles Frederick.
Thompson: Harold Steuart.

EDGBASTON.

Fellows:—
Lakin-Smith: Ernest.
Mathews: William.

WARWICKSHIRE—*continued.*

HARBORNE.

Professional Associate:—
Barclay: Thomas.

KNOWLE.

Fellow:—
Ludlow: Walter Robert.

LEAMINGTON.

Fellow:—
Fayerman: George Metcalfe.

Professional Associate:—
Southorn: Charles Herbert.

LEEK WOOTTON.

Fellows.
Donne: Henry.
Raffety: Herbert William.

MILVERTON.

Fellow:—
Smith: Frank William.

NUNEATON.

Fellow:—
Evans: Walter Pearson.
Stewart: Samuel Parr.

Professional Associates:—
Dawson: George Crosbie.
Pearse: Octavius Burroughes.
Staley: Albert Henry.
Tremlett: Walter William.

STARTON.

Fellow:—
Gilpin-Brown: William Dundas.

STRATFORD-ON-AVON.

Fellow:—
Deer: Edward.

Professional Associate:—
Armstrong: John William Wilson.

WARWICK.

Fellows:—
Fosbery: William Thomas Exham.
Margetts: John William.

WESTMORELAND.

AMBLESIDE.

Professional Associate:—
Dickinson: James Murgatroyd.

APPLEBY.

Professional Associate:—
Kelly: George William Calver.

WESTMORELAND—*continued.*

KENDAL.

Fellows:—
Banks: John.
Hoggarth: Arthur.
Hoggarth: Edwin,
Webster: Alexander.

KIRKBY LONSDALE.

Fellow:—
Punchard: Frederick.

MILNTHORPE.

Fellow:—
Holme: John.

WINDERMERE.

Professional Associate:—
Jackson: Edward Henry.

WILTSHIRE.

BEMERTON.

Fellow:—
Squarey: Newell William Pitts

CHIPPENHAM.

Fellows:—
Brinkworth: Robert Edwin.
Marshall: Lionel Hasler.
Napier: Henry Burroughes.
Smith: Henry Herbert
Watkins: Robert Arundel.

Professional Associate:—
Furmedge: John Harris.

DOWNTON.

Fellow:—
Squarey: Elias Pitts.
Past-President.

Professional Associate:—
Wrightson: John Frederick Hutton.

Associates:—
Fream: William.
Wrightson: John.

HAM.

Professional Associate:—
Burder: Reginald Edward Campbell.

MARLBOROUGH.

Fellow:—
Jeans: Mark.

PEWSEY.

Fellow:—
Ferris: George.

Professional Associate:—
Puckridge: Percival Martin.

WILTSHIRE—*continued.*

SALISBURY.

Fellows:—
Bath: Fred.
Canning: William Browne.
Gater: Caleb William.
Hannen: Reginald St. John.
Rawlence: Ernest Alfred.
Rawlence: James Edward.
Rigden: Francis.
Squarey: Elias Pitts,
Past-President.
Squarey: Newell William Pitts.
Waters: Edward.
Woolley: John Turton.

Professional Associate:—
Meyer: Horace Leycester.

SUTTON BENGER.

Professional Associate:—
Harrison: Henry Beauchamp.

SWINDON.

Fellows:—
Bishop: Charles.
Pritchett: Ellis Herbert.

TISBURY.

Fellow:—
Combes: Cyrus.

TROWBRIDGE.

Fellow:—
Mundy: Herbert.

Professional Associate:—
Snailum: Walter Wadman.

WOOTTON-BASSETT.

Fellow:—
Baines: Martin Talbot.

WORCESTERSHIRE.

BALSALL HEATH.

Professional Associate:—
Perkins: Joseph.

EVESHAM.

Fellows:—
Righton: Edward Grantham.
Smith: William.

KIDDERMINSTER.

Fellow:—
Joseland: Charles.

RINGS NORTON.

Fellow:—
Tomson: James John.

WORCESTERSHIRE—*continued.*

LYE.

Professional Associate:—
Weaver: Henry Percival Francis.

MADRESFIELD.

Fellow:—
Stallard: William.

Professional Associate:—
Hunt: George Whitaker.

MALVERN LINK.

Fellow:—
Stallard: William.

MALVERN WELLS.

Fellow:—
Chamberlain: George Arthur Raddon.

MOSELEY.

Professional Associate:—
Type: Marcus Oswald.

STOURBRIDGE.

Fellows:—
Fiddian: William.
King: Henry.
Punchard: Frederick Burt.

Professional Associate:—
Barratt: Harry.

STOURPORT.

Fellow:—
Clarke: Alfred Dudley.

WORCESTER.

Fellows:—
Buck: Albert,
Member of Council.
Buck: Herbert Wilson.
Everill: Frank.
Parker: William Henry.

Professional Associate:—
Shorney: Arthur Shepherd.

YORKSHIRE.

ABERFORD.

Professional Associate:—
Prater: Thomas Herbert.

BALDERSBY.

Fellows:—
Gregson: William.
Peirson: George Brodrick.

BARNSLEY.

Professional Associate:—
Wade: Henry.

BEDALE.

Fellow:—
Clarke: Christopher.

YORKSHIRE—*continued.*

BEVERLEY.

Fellow:—
Evans: William.

BINGLEY.

Fellow:—
Armistead: Richard.

Professional Associate:—
Salt: Harrold Crossley.

BRADFORD.

Fellows:—
Clare: Edward Lovell.
Cowgill: Brian Bollans Hird.
France: Arthur Alderson.
France: Charles.
Gott: Charles.
Gott: Charles Henry.
Hindle: John.
Jackson: Samuel.
Smith: Frederic Ellison.
Smith: Harry Russell.
Smith: Wheater.

Professional Associates:—
Jackson: Leonard Labrey.
Priestman: Alfred Tuke.

BRIGHOUSE.

Fellow:—
Armytage: Sir George, Bt.

EBBERSTON.

Fellow:—
Bradley: William Edward.

GOOLE.

Fellow:—
Hobson: Harry.

GUISBOROUGH.

Fellow:—
Clarke: John William.

HALIFAX.

Fellows:—
Buckley: George.
Fox: Charles James.
Horsfall: Richard,
Member of Council.

Fellows:—
Horsfall: Richard Edgar.
Jackson: Benjamin Whitehead.

Professional Associates:—
Fox: Charles Edward.
Hebblethwaite: Charles Henry.

HARROGATE.

Fellow:—
Renton: George.

HEBDEN BRIDGE.

Professional Associate:—
Sutcliffe: James Henry.

YORKSHIRE—*continued.*

HUDDERSFIELD.

Fellows:—
Abbey: Joe Burman.
Butler: Charles.
Crowther: John Herbert.
Demetriadi: Thomas Marsden.
Dransfield: Henry Brook.
Hanson: John Henry.

Professional Associates:—
Mallinson: Charles Herbert.
Shaw: Arthur.

HULL.

Fellows:—
Bilson: John.
Botterill: William.
Brodrick: Frederick Stead.
Easton: John H.
Fryer: George.
Hebblethwaite: Louis.
Tiffen: John Henry.
Todd: William Henry.
Watson: John.
Wellsted: William Henry.
White: Alfred Edward.

Professional Associates:—
Clarke: Charles Wentworth.
Jackson: Alfred Ernest.

KEIGHLEY.

Fellow:—
Broster: Robert Buck.

Professional Associate:—
Weatherhead: David Wilkinson.

LEEDS.

Fellows:—
Fawcett: John Mortimer.
Fenwick: Thomas.
Gott: Frank.
Hepper: John.
Hollis: Walter Dawson.
Leather: George Herbert.
Oldroyd: Linley.
Richardson: John.
Winn: Thomas.

Professional Associate:—
Leather: William Beaumont.

LOWTHORPE.

Fellow:—
Piercy: Henry Onslow.

Professional Associate:—
Piercy: Frederic Onslow.

MALTON.

Fellow:—
Abbott: Robert Thomas G.

MIDDLEHAM.

Professional Associate:—
Maughan: John.

YORKSHIRE—*continued.*

MIDDLESBOROUGH.

Fellow:—
Lofthouse: Roger.

MORLEY.

Professional Associate:—
Booth: Ernest Witton.

OULTON.

Fellow:—
Farrer: John.

OUSBURN.

Professional Associate:—
Bower: Arthur Wentworth Chivers.

PATELEY BRIDGE.

Professional Associate:—
Boord: Walter Bertram.

PENISTONE.

Professional Associate:—
Hinchcliffe: John, Jun.

PONTEFRACT.

Fellow:—
Watson: John, Jun.

RAWCLIFFE.

Fellow:—
Wright: James.

ROTHERHAM.

Professional Associate:—
Rawstron: Charles Oliver.

SCARBOROUGH.

Professional Associate:—
Andrews: Stephen Hampton.

SEACROFT.

Fellow:—
Townend: William.

SHEFFIELD.

Fellows:—
Fowler: Frederick.
Fowler: Reginald William.
Innocent: Charles John.
Marshall: Peter.
Sandford: Charles Sidney.
Wilde: William.

Professional Associate:—
Denton: William.

SKIPTON-IN-CRAVEN.

Professional Associate:—
Thompson: Charles William George Hugh.

SKIRLAUGH.

Professional Associate:—
Hollis: Ralph.

YORKSHIRE—*continued.*

SLEIGHTS.

Fellow :—
Popple : John.

SOWERBY BRIDGE.

Professional Associate :—
Cragg : George Edwin.

WAKEFIELD.

Fellows :—
Fawkes : Algernon.
Greaves : John Oldroyd.
Kaye : John Edward.
Massie : Frank.

Professional Associate :—
King : Walter Nike.

WYKEHAM.

Professional Associate :—
Petch : John Stonehouse.

YORK.

Fellows :—
Cox : Edward Samuel.
Clutton : William James.

Fellows :—
Forbes : Charles Mansfeld.
Fryer : George.
Jolly : John Hawkins.
Walker : Francis Elliott.
Watson : Herbert Edward.

YORKSHIRE—*continued.*

Professional Associates :—
Kerr : Arthur Herbert.
Lee : George Cansfield.
Lofthouse : Albert Wilson.
Pegge : John Thomas.
Terry : Francis William.

ISLE OF MAN.

DOUGLAS

Fellow :—
Kerruish : William Maltby.

Professional Associate :—
Kay : Walter Robert.

CHANNEL ISLANDS.

GUERNSEY.

Professional Associate :—
Morrish : Hugh Kenneth.

IRELAND.

ARMAGH.

ARMAGH.

Fellow:—
Alexander: Henry Geo. Samuel, Major.

ANTRIM.

ANTRIM.

Fellows:—
Barton: Henry Dupré Malkin.
Cordner: Clement Kennedy.

BALLYCASTLE.

Fellow:—
Johnstone: John Brett.

BALLYMENA.

Fellow:
Knight: Maurice Charles.

BELFAST.

Fellows:—
Geddes: Andrew Donald.
Patch: Shirley Hutchins.

Professional Associates:—
Hooper: Gerald Huntley.
Ransom: Thomas Reginald.
Warwick: George Ernest.

CRUMLIN.

Fellow:—
McClintock: Chas. Ed., Lieut.-Col.

GLENARM.

Fellow:—
McDonald: Allan.

PORTRUSH.

Fellow:—
Given: Maxwell.

RANDALSTOWN.

Fellow:—
Young: George Lawrence.

CARLOW.

TULLOW.

Fellow:—
Adair: John Olphert.

Professional Associate:—
Butler: Richard Pierce.

CAVAN.

CAVAN.

Fellows:—
Blackley: Travers Robert.
Forbes: Arthur.
Trench: Arthur.

KILLESHANDRA.

Fellow:—
Godley: Archibald.

KINGSCOURT.

Fellow:—
Synge: Edward.

CLARE.

ENNIS.

Fellows:—
Keane: Marcus.
Scott: John William.
Willis: Henry de Laval.

ENNISKERRY.

Fellow:—
Johnson: Jocelyn Otway.

QUIN.

Fellow:—
Studdert: R. R.

CORK.

ARDNAGASHEL.

Professional Associate:—
Hutchins: Richard.

BANDON.

Fellow:—
Hodson: Richard Edmond.

BANTRY.

Fellows:—
Ellis: Ernest Francis Leslie.
Hutchins: Samuel Newburgh.

CHARLEVILLE.

Fellows:—
Sanders: Robert Massey Dawson.
Sanders: Charles Stewart.

CORK—*continued.*

CORK.

Fellows:—
Beamish : William Henry.
Broadley ; Edward Barry.
Carroll ; Theodore Frederick.
Carroll : Joseph Hatton.
French : Savage.
Galbraith : Samuel Horton.
Humphreys : Daniel Peard.
Townsend : Robert Uniacke F.
Warren : Richard Lane.

MALLOW.

Fellows:—
Creagh : Arthur Gethin.
Purcell : Wills W.
Vandeleur : Cecil Ernest.

MIDDLETON.

Fellow:—
Fitzgerald : James H. B. Penrose.

MITCHELSTOWN.

Fellow:—
Frend : Henry.

DONEGAL.

BUNCRANA.

Fellow:—
Walmsley : Arthur Tindal.

KILLYBEGS.

Fellow:—
Brooke : Arthur.

LETTERKENNY.

Fellow:—
Boyd : William Henry.

LIFFORD.

Fellow:—
Cochrane : John.

RAMELTON.

Fellow:—
Swiney : William D.

DOWN.

CASTLEWELLAN.

Fellow:—
Garrett : James Hugh Moore.

DOWNPATRICK.

Fellow:—
Ward : Hon. Somerset.

DOWN—*continued.*

HILLSBOROUGH.

Fellow:—
M'Clintock : Arthur.

MOUNTSTEWART,

Fellow:—
Brownlow : Charles

NEWCASTLE.

Fellow:—
Brownlow : Claude.

PORTAFERRY.

Fellow:—
Warnock : Thomas Archibald.

ROSTREVA.

Fellow:—
Watson : William James.

WARINGSTOWN.

Professional Associate:—
Waring : Holt.

DUBLIN.

BALBRIGGAN.

Fellow:—
Carson : William B.

DUBLIN.

Fellows:—
Abbott : Joseph.
Baldwin : Chambré Corcor T.
Barton : John George.
Bradshaw : Robert Macnevin.
Comber : Patrick Forstall.
Darley : Edmund Sanders.
Dickinson : Charles.
Dolling : Caledon Josias Radclyffe.
Galbraith : Hugh.
Hamilton : Arthur.
Hardman : Edward Chambré.
Holmes : William Eden
Kincaid : James Stewart,
Member of Council.
Kincaid : Joseph Westby.
Lyons : Francis Oliver.
Maunsell : Richard Edward.
Orr : Cecil.
Roe : William James.
Ruttledge : Thomas Henry Bruen.
Scott : John Russell.
Stewart : Ed. P., Capt.
Stewart : William Thomas.
Stokes : Frank.
Tanner : Kearns Deane.
Tatlow : John Garnett.
Tatlow : Tissington Wm. Garnett.
Tisdall : Henry Chichester.
Townsend : Chas. Eyre Coote.
Townshend : Charles Loftus.
Townshend : James Richard Clarke.
Townshend . Thomas Courtney.
Townshend : Thomas Loftus.

DUBLIN—*continued.*

Fellows:—
Trench: Philip Francis C.
Vernon: Arthur Pomeroy.
Vernon: Fane.
Willis: Gilbert de Laval.

Professional Associates:—
Hall: Henry Alexander Thomas.
Hemphill: Charles George Cathcart.
Kincaid: Herbert Edward.
Stewart: George Pakenham.
Wood-Martin: Hy. Roger Bromhead.

DUNDRUM.

Fellows:—
Trench: James Currie.
Verschoyle: William Henry Foster.

KILLINEY.

Fellow:—
Stewart: George Francis.

KINGSTOWN.

Fellow:—
Quin: Richard.

Professional Associate:—
Goff: James Caufeild.

MONKSTOWN.

Fellows:—
Dopping: James Henry, Col.
Stokes: Richard.
Watson: Arthur B.

RAHENEY.

Fellow:—
Chatterton: Robert Smith.

FERMANAGH.

BALLINAMALLARD.

Fellow:—
Burke: Henry Anthony.

ENNISKILLEN.

Fellows:—
Maude; Maurice Ceeley.
Maude: Christopher H.

IRVINESTOWN.

Fellow:—
Maude: Anthony F.

GALWAY.

AHASCRAGH.

Fellows:—
Armstrong: Elliott Graham.
Mahon: George Gilbert.

ABDRAHAN.

Fellow:—
Blakeney: Robert Edward.

GALWAY—*continued.*

BALLINASLOE.

Fellow:—
Armstrong: Elliott Graham.

Professional Associate:—
Crozier: George Francis.

LOUGHREA.

Fellow:—
Tenor: Edward Shaw.

Professional Associate:—
Moeran: Archibald Edward.

ROUNDSTONE.

Fellow:—
Robinson: Henry Arthur.

KERRY.

ARDFERT.

Fellow:—
Trench: George Frederic.

GORTALEA.

Fellow:—
Hussey: Samuel Murray.

KENMARE.

Fellow:—
Maxwell: Henry Percival.

LISTOWEL.

Fellow:—
Crosbie: James Dayrolles.

TRALEE.

Fellows:—
Denny: Francis M.
Fitzgerald: Robert John.

KILDARE.

CARBERY.

Fellow:—
Tyrrell: Garrett Charles.

CURRAGH CAMP.

Fellows:—
Alcock: Samuel.
Randall: Richard.
Rea: John Todd.

KILKENNY.

NISTIOGE.

Fellows:—
Hamilton: Ed. Chetwood, Major.
Newport: George Bellingham.

KILKENNY—*continued.*

KILKENNY.

Fellow :—
Kough : Thomas.

KING'S COUNTY.

MONEYGALL.

Fellow :—
Garvey : Toler, R.

PARSONSTOWN.

Fellows :—
Frend : Causabon William.
Garvey : Toler R., Jun.

TULLAMORE.

Fellow :—
Browne : Ernest H.

LEITRIM.

CARRICK-ON-SHANNON.

Fellow :—
Darley : Henry Ponsonby Shaw.

DROMAHAIR.

Fellow :—
Hewson : George Rawdon M.

LIMERICK.

FOYNES.

Fellow :—
Jameson : Robert William.

LIMERICK.

Fellows :—
Barrington : John Beatty.
Fitzgerald : Peter David.
Hosford : Edward Henry Poe.
Hunt : William Lewis.
Hunt : William Power.
Welply : James.
White : Arthur.

Professional Associate :—
O'Brien : Donough Richard.

LONDONDERRY.

COLERAINE.

Fellow :—
Given : Maxwell.

KILREE.

Fellow :—
Armstrong : Alexander Moore, Capt.

LONDONDERRY—*continued.*

LONDONDERRY.

Fellow :—
Harvey : James George Moorewood.

LONGFORD.

EDGEWORTHSTOWN.

Fellows :—
Edgeworth : Thomas N.
Wilson : Arthur J. de Courcy.

LONGFORD.

Fellow :—
Roberts : Edward Ussher.

LOUTH.

CASTLE BELLINGHAM.

Fellow :—
Butler : Walter Selby.

DROGHEDA.

Fellows :—
Alexander : Robert Arthur.
Wynne : Alfred Henry.

COLLON.

Fellow :—
Gloucester : Thomas Edward.

DUNDALK.

Fellow :—
Bigger : John James Eastwood.

MAYO.

BALLINA.

Fellows :—
Baillie : John Robert.
Knox : Albert Frederic.
Knox : Ernest Henry.
Knox : Albert Henry.

BALLINROBE.

Fellow :—
Burke : William Creaghe.

CASTLEBAR.

Fellow :—
Dean : George B.

WESTPORT.

Fellows :—
Powell : Robert.
Vereker : Henry Robert.

MEATH.

ENFIELD.

Fellow:
White: Richard.

KELLS

Fellows:—
Barns: William Arthur.
Farrell: Edward Francis.

SLANE

Fellow:—
Osborne: Charles W.

MONAGHAN.

GLASSLOUGH.

Fellow:—
McCullagh: James W.

MONAGHAN.

Fellow:—
Rogers: Harry.

QUEEN'S COUNTY.

ABBEYLEIX.

Fellow:—
Fitzherbert: Henry Corry.

BALLYCOLLA.

Fellow:—
Owen: Arthur John.

MOUNTRATH.

Fellows:—
Franks: Mathew Henry.
Franks: Mathew Henry, Jun.

ROSCOMMON.

BOYLE.

Fellow:—
Murphy: James Fraser, Major.

CASTLEREA.

Fellows:—
Hussey: Maurice T. G.
Young: Owen Walter O'Grady.

MOUNT TALBOT.

Fellow:—
Talbot-Crosbie: William D.

ROSCOMMON.

Fellow:—
Coote: Stanley Victor.

SLIGO.

ROSSES.

Professional Associate:—
Baker: Cecil Cautley.

SLIGO.

Fellows:—
L'Estrange: Christopher A.
Robinson: James Dodwell.
Robinson: Richard St. George.
Webb: Charles.

Professional Associate:—
Gethin: Randolph George.

TIPPERARY.

CAHIR.

Fellow:—
Rochfort: William.

ROSCREA.

Fellows:—
Bridge: Henry Powell.
Smith: Sidney Edward.

TYRONE.

CALEDON.

Fellow:—
Hearn: Chas. Richard.

CARRICKMORE.

Fellow:—
Alexander: Chas. Murray, Lieut.-Col.

DUNGANNON.

Fellow:—
Robinson: William Godfrey.

MOY.

Fellow:—
Lloyd: Averall.

OMAGH.

Fellows:—
Irvine: Hy., Lieut.-Col.
Smith: George Young.

WATERFORD.

CAPPOQUIN.

Fellow:—
Marmion: Thomas Henry.

FETHARD.

Fellow:—
Taylor: J. Godfrey L.

WATERFORD—*continued.*

LISMORE.

Fellow :—
Penrose : James Edward.

WATERFORD.

Fellows :—
Anderson : Alex. Carew.
Kelly : Richard Henry.
Penrose : William Robert.

WESTMEATH.

AUBURN.

Fellow :—
Coote : Orlando Robert.

KILBEGGAN.

Fellow :—
Quin : William Thomas Cuffe.

KILLUCAN.

Fellow :—
Evans : William.

MOATE.

Fellow :—
Fetherstonhaugh : Theodore.

MULLINGAR.

Fellow :—
Barton : Robert Culley.

STREAMSTOWN

Fellow :—
Barton : Robert Culley.

WEXFORD.

ARTHURSTOWN.

Fellow :—
Bowen : Edward Fergusson.

CASTLEBRIDGE.

Fellow :—
Nunn : William Bolton.

ENNISCORTHY.

Fellows :—
Grey : Charles Grey
Ruttledge : Francis.

GOREY.

Fellows :—
Stopford : The Hon. Geo. Frank Wm.
Turner : Frederick Adolphus B.

NEW ROSS.

Fellow :—
Tyndall : Albert Henry.

WEXFORD.

Fellow :—
Nunn : William Bolton.

WICKLOW.

ARKLOW.

Fellow :—
Tailyour : Alexander.

BRAY

Fellows :—
Hodson : Gilbert Neville.
Knox : Edward Ernest.

SCOTLAND.

ABERDEENSHIRE.

ABERDEEN.

Fellows—
Macdonald : Ranald.
Macdonald : Ranald Roderick.
Walker : George James.

Associate—
Forbes : Alexander.

NEW DEER.

Fellow:—
Brown : George.

AYRSHIRE.

AYR.

Fellows—
Johnston : James.
Stevenson : Allan.

GIRVAN.

Fellow:—
Murray : Gilbert.

KILMARNOCK.

Fellows:—
Duke : Freke Guy Rashleigh.
Tannahill : Robert Dunlop.
Turner : Joseph Harling.

Professional Associate:—
Henderson : Richard.

CAITHNESS-SHIRE.

THURSO.

Fellow:—
Mackay : William.

DUMFRIESSHIRE.

ECCLEFECHAN.

Fellow:—
Lochart : Peter.

LOCKERBIE.

Fellow:—
Aitken : John Malcolm.

MONIAIVE.

Fellow:—
Wallace : William Sydney Smith.

EDINBURGHSHIRE.

EDINBURGH.

Fellows:—
Beattie : William Halden.
Currer : John Fortune.
Davidson : James Inglis.
Lawrence : Peter.
Marwick : Thomas Purves.
Robertson : WalterWood
Simpson : George.

KIRKNEWTON.

Fellow:—
Glendinning : George Robert.

LIBERTON.

Fellow:—
Mackenzie : Donald Falconer.

FIFESHIRE.

COLINSBURGH.

Fellow:—
Fortune : George Robert.

DUNFERMLINE.

Fellow:—
Bell : Andrew Walker.

FORFARSHIRE.

BROUGHTY-FERRY.

Fellow:—
Winning : Douglas Campbell Wills.

DRYBURGH.

Fellow:—
Murray : Joseph.

HADDINGTONSHIRE.

LONGNIDDRY.

Fellow:—
Connor : George Harry Adams.

KINCARDINESHIRE.

STONEHAVEN.

Fellow:—
Hart : John.

MARYKIRK.

Fellow:—
Sandford-Thompson : Wm. James.

KIRKCUDBRIGHTSHIRE.

KIRKCUDBRIGHT.

Fellow:—
Sproat : Robert.

LANARKSHIRE.

CARLUKE.

Fellow:—
Barr : James.

GLASGOW.

Fellows:—
Adam : Thomas.
Anderson : Robert.
Barr : James.
Bathgate : Charles S.
Binnie : Thomas.
Binnie : Thomas, Jun.
Blair : Alexander.
Brown : William.
Bryden : Robert A.
Burnet : Frank.
Copland : William Robertson.
Dansken : Alexander Brown.
Dansken : John.
Davidson : James Inglis.
Fraser : Thomas Smellie.
Fraser : William.
Fyfe : John William.
Gilchrist : John.
Hart : Patrick Campbell.
Henry : James.
Hill : Thomas Nelson.
Howatt : William.
Kirkwood : Charles.
Knox : Alexander.
Laing : David Taylor.
Laing : John.
Lammie : George.
MacCallum : Alexander Duncan.
MacDougall : Robert.
Makins : William Alexander.
Munro : Daniel.
Murdock : Robert.
Murray : John Campbell.
Purdie : Anthony.
Robb : William Johnston.
Scott : Robert.
Sharp : John Grant.
Smellie : George.
Smellie : Thomas Davies.
Taylor : Robert.
Walker : John.
Wilson : James.
Whyte : John.
Yuille : Robert.

MOTHERWELL.

Fellows:—
Cullen : Alexander.
McCallum : James.

Professional Associate:—
Welsh : Hugh.

LANARKSHIRE—*continued.*

WISHAW.

Fellow:—
Logan : James.

ORKNEY ISLES.

KIRKWALL.

Fellow:—
MacLennan : William.

RENFREWSHIRE.

GREENOCK.

Fellow:—
Hamilton : Robert.

PAISLEY.

Fellows:—
Davidson : Charles.
Gillespie : John.

ROXBURGHSHIRE.

JEDBURGH.

Fellow:—
Cunningham : Robert.

STIRLINGSHIRE.

FALKIRK

Fellows:—
Brown : Charles.
Wallace : Thomas Douglas.

DRYMEN.

Fellows:—
Macpherson : William.
Murray, William Watson.

SUTHERLANDSHIRE.

GOLSPIE.

Fellow:—
McLean : Donald.

WALES.

ANGLESEY.

LLANFAIR, P.G.

Fellow:—
Jones : William Edward.

BRECKNOCKSHIRE.

BRECON.

Fellow:—
Williams : Gerald Garnons.

CRICKHOWELL.

Fellow:—
Coles : Samuel Hood Cowper.

CARMARTHENSHIRE.

LLANWRDA.

Fellows:—
Davies : Cyril Froodvale.
Davies : John Morgan.

LLANELLY.

Fellows:—
Blake : George.
Griffiths : William.
Wilkins : William.

CARNARVONSHIRE.

BANGOR.

Fellow:—
Dew : Willliam Arthur.

CONWAY.

Fellow:—
Hooper : Edgar Wilfred.

CRICCIETH.

Fellow:—
Jones : Walter Butler Clough.

DENBIGHSHIRE.

ABERGELE.

Fellow:—
MacNicoll : Douglas Henry.

COLWYN BAY.

Fellow:—
Porter : John Merry.

Professional Associate.
Pineger : James Reginald.

DENBIGHSHIRE—*continued.*

DENBIGH.

Fellows:—
Clough : Richard Charles Butler.

LLANRWST.

Fellow:—
McIntyre : Peter.

FLINTSHIRE.

FLINT

Professional Associate:—
Hurlbutt : Percival.

HAWARDEN

Fellow:—
Swetenham : Henry.

MOSTYN.

Fellow:—
Pickering : William Cloves.

GLAMORGANSHIRE.

ABERCYNON.

Professional Associate:—
Williams : Daniel Smith.

BRITON FERRY.

Professional Associate:—
Lyons : Edward Colvill.

CANTON.

Professional Associate:—
Turner : Herbert.

CARDIFF.

Fellows:—
Blosse : Edward F. Lynch.
Brown : Thomas Forster.
Corbett : Edwin Wortley Montagu.
David : Edmund Ussher.
Harper : William.
Hern : Samuel
Rees : Ithel Treherne.
Rigg : Charles.
Rooney : Samuel.
Thomas : George.
Waring : Charles Edward.

GLAMORGANSHIRE—*continued.*

Professional Associates:—
David: George Willoughby.
Homfray: Herbert Richards.
John: Henry Bell.
Rickards: Robert Hillier Traherne Anson.
Seel: Robert Harold.
Thomas: Illtyd.
Thomas: William James Edgar.

HENGOED.

Professional Associate:—
Jones: Philip Vivian.

LLANDAFF.

Professional Associate:—
Jones: David Pugh.

PONTYPRIDD.

Fellow:—
Evans: Arthur Owen.

PORT TALBOT.

Professional Associates:—
Cooke: Frederick Roper.
Osbourn: Edward.

ST. FAGANS.

Fellow:—
Forrest: Robert.

Professional Associate:—
Forrest: William.

SWANSEA.

Fellows:—
Leeder: Ernest Holtham.
Price: Francis Holborrow Glynn.
Rees: William John.

MERIONETHSHIRE.

BALA.

Fellow:—
Williams: John.

MERIONETHSHIRE—*continued.*

CORWEN.

Professional Associate:—
Lynes: Humphrey Dod.

TOWYN.

Fellow:—
Gillart: David.

MONTGOMERYSHIRE.

KERRY.

Fellow:—
Poundley: John Edward.

LLANIDLOES.

Fellow:—
Grant: James.

Professional Associate:—
Kerr: John Murray.

NEWTOWN.

Fellow:—
Owen: William Scott.

WELCHPOOL.

Fellow:—
Addie: William Forrester.

PEMBROKESHIRE.

ANGLE.

Fellow:—
Barker: Geoffry Lionel.

HAVERFORDWEST.

Fellows:—
Owen: Thomas Henry Rule
Owen: Thomas Rule.

RADNORSHIRE.

GLASBURY.

Fellow:—
Gunter: James.

FOREIGN PARTS.

AUSTRALIA.

QUEENSLAND.

Fellow:—
Hood: Hon. Victor Albert Nelson.

BAHAMAS.

Colonial Fellow:—
Miller: William.

BARBADOES.

Colonial Fellows:—
Bowen: Ernest Francis Sinderby.
Rogers: Colin Percy.

BLOEMFONTEIN.

Professional Associate:—
Stucké: William Henry.

BRITISH HONDURAS.

Colonial Fellow:—
Usher: Charles Richard.

BURMA.

Colonial Fellows:—
Clancey: John Charles.
Nisbet: John.

CAIRO.

Professional Associate:—
Monson: Henry John.

CAPE COLONY.

Professional Associate:—
Leane: Walter Burdett.

CAPE TOWN.

Fellow:—
Elton: Herbert Averill.

CEYLON.

Professional Associate:—
Nicholls: Edward Alfred.

CHINA.

HONG KONG.

Fellows:—
Bryant: George Herbert.
Chapman: George James.
Hancock: William St. John Hü.

WEI-HAI-WEI.

Fellow:—
Knight: Henry St. John.

DEMERARA.

Colonial Fellow:—
Anderson: Chas. Willgress.

DOMINICA.

Colonial Fellow:—
Hodge: Leonard Percival.

Professional Associate:—
Skeat: Arthur Percival.

GIBRALTAR.

Fellow:—
Cardona: Joseph, Jun.

JAMAICA.

Professional Associate:—
Hollis: Herbert.

Colonial Fellows:—
Baker: William Anthony
Parry: Osborne Bartlett.
Liddell: Walter Collin.
McGahan: Amos Harvey.

JOHANNESBURG.

Fellow:—
Farrar: Sidney Howard.

Professional Associates:—
Irvine: Archibald Wyndham.
Key: Astley Cooper.
Stucké: William Henry.

MADRAS.

Colonial Fellow:—
Aiyar: Anathandapuram Vaithcanatha Ramachandra.

MALTA.

Fellow:—
Raves: Bertram Adams.

Professional Associate:—
Jones: John Arthur.

MAURITIUS.

Colonial Fellow:—
Baty: Sebert Conrad Elton.

ST. LUCIA.

Colonial Fellow:—
Cooper: John Ashley.

STRAITS SETTLEMENT.

Fellows:—
Lermit: Alfred William.
Sayer: George William.
Taylor: Edgar Charles.

Professional Associate—
Neubronner: Harry Alfred.

TASMANIA.

Professional Associate:—
Colbourn: Henry James.

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